

ABSTRACTS

SYMPOSIUM

1.

Screening For Heart Disease

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Screening for Heart Disease. Are we there yet? Atherosclerosis is the term used to describe the buildup of cholesterol deposits in the arteries of the body. Plaque deposits in the carotid arteries increase the risk of stroke, while deposits in the coronary arteries increase the risk of a myocardial infarction. Together, stroke and coronary artery disease is the number one cause of death in many developed nations. The INTERHEART study has demonstrated that over 90% of a population attributable risk of myocardial infarction is linked to 9 well established risk factors. Risk calculators are also available to evaluate an individual's risk of developing an adverse cardiovascular event, such as the Framingham Heart Study score (FRS) and the European SCORE (Systematic Coronary Risk Evaluation). National guidelines have also advocated the use of risk scoring to identify higher risk individuals who might benefit from early medical intervention. However, the FRS has been shown to underestimate risk amongst the young, amongst women and also in people who belong to lower socio-economic groups. As a result, studies have shown that up to 70% of persons classified as low or intermediate risk go on to develop an adverse CV event. Modern imaging technology has allowed us to identify early atherosclerosis. The two most promising technologies are B-mode carotid ultrasound and CT based coronary calcium score. Assessment of intima media thickness and the presence of plaque by Carotid B-mode ultrasound has been shown to predict both cardiovascular and coronary events. We have shown that use of carotid ultrasound for the detection of carotid plaques, reclassified 25% of low FRS patients and 52% of intermediate FRS patients into the high risk category. This would change

management of these persons with regards to the use of statins and treatment goals for their cholesterol. Coronary calcium is a surrogate measure of coronary plaque burden. The use of calcium scoring allows evaluation of risk without the use of intra-venous contrast and a lower dose of radiation. Coronary calcium scoring has been shown to predict risk of major adverse cardiovascular events in diverse groups including the elderly and even amongst diabetics (often considered to be coronary artery disease risk equivalents). While cancer screening such as mammogram for breast cancers, pap smears for cervical cancer, and colonoscopy for colon cancer are common place, imaging the arteries to screen for atherosclerosis is not commonly performed. Instead, the most common screening test done today for heart disease is exercise treadmill stress testing. While stress testing is accurate in picking up severe narrowing of the heart arteries, it is unable to detect non flow limiting stenosis. Since 70% of lesions that result in an acute coronary syndrome is not flow limiting, these would not be detected by stress testing. Stress testing is therefore unlikely to identify at risk individuals. The move towards using these newer screening tools stems from the belief that in individuals identified to have atherosclerosis, the use of medications particularly statins at an early stage can prevent progression of atherosclerosis. However, there remains no prospective, randomised controlled trials to look at whether early use of statins based on atherosclerotic imaging will result in improved patient outcomes. Such studies need to be conducted before wholesale adoption of screening for sub-clinical atherosclerosis can be recommended.

2.

When and How to Control the Risks

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Worldwide, of the 58 million deaths in 2005, the World Health Organization (WHO) estimated that approximately 17.1 million people died from cardiovascular diseases (CVDs). The burden has been rising rapidly, and poses a strain to healthcare system, both in developed and developing countries, rich or poor. By 2030, it was estimated that almost 23.6 million people will die from CVDs such as heart disease and stroke, with the largest increase in number of deaths occurring in the South-East Asia. Many of these deaths are preventable. The WHO estimated that by having a healthy diet, regular physical activity and avoiding tobacco smoke, 80% of coronary heart disease could be prevented. Indeed, throughout the years, researches confirmed that many non-communicable/chronic diseases, like stroke and cancer, also share common risk factors. Therefore, high priority should be accorded to acting upstream of the disease pathway and tackling these lifestyle-related behavioral risk factors. I would like to take this opportunity to share with you our experience in monitoring the prevalence of lifestyles-related risk factors in Hong Kong and our work in the prevention and control of non-communicable/chronic diseases, such as heart disease and stroke.

ABSTRACTS

3.

Lifestyle and Risk Factor Management in Patients with Coronary Heart Disease in Europe – Where Have We Failed?

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Objectives. Three EUROASPIRE surveys have been conducted over 12 years in 8 countries to describe time trends in the risk factor and therapeutic management in coronary patients in Europe.

Methods. 8547 coronary patients have been interviewed and examined over this period.

Results. The prevalence of smoking remained unchanged across the three surveys (20.3%; 21.2%; 18.2%). Prevalence of obesity (BMI ≥ 30 kg/m²) and central obesity (waist circumference ≥ 102 cm men and ≥ 88 cm women) increased (25.0%; 32.6%; 38.0%) and (42.2%; 53.0%; 54.9%) respectively. The proportions with blood pressure $\geq 140/90$ mmHg ($\geq 130/90$ mmHg in diabetes) were similar (58.1%; 58.3%; 60.9%). Therapeutic control of blood pressure deteriorated from 41% in the first to 38.7% in the third survey. The proportions with total cholesterol ≥ 5.0 mmol/l decreased: 87.0%; 59.6%; 28.5%. Therapeutic control of total cholesterol improved from 19.5% to 75.3%. The prevalence of known diabetes increased (17.4%; 20.1%; 28.0%). Cardioprotective medications: antiplatelets (80.8%; 83.6%; 93.2%), beta-blockers (56.0%; 69.0%; 85.5%), ACE/ARB's (31.0%; 49.2%; 74.6%) and statins (18.1%; 57.3%; 87.0%).

Conclusions. The adverse lifestyle trends among European coronary patients and the lack of any improvement in blood pressure management are a cause for concern. Lipid management continues to improve but a substantial proportion of patients still remain above the recommended lipid targets. A wide gap continues to exist in the implementation of evidence-based medicine in cardiological practice. Saving people's lives from acute heart attacks is not sufficient, and an urgent investment in prevention is needed to address the underlying causes of heart disease.

4.

Cardiac Rehabilitation Outside the Hospital – A way to Control and Prevent Cardiovascular Diseases in Africa

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With the aim of improving the control and prevention of cardiovascular diseases in Africa, in May 2010 a School of Cardiology was organized by Heart Friends Around the World (HFATW) in San Pellegrino Terme, Bergamo, Italy. HFATW is a worldwide organization affiliated to the World Heart Federation and aiming to promote the prevention and rehabilitation of cardiovascular diseases. The School of Cardiology was a full immersion week of courses, including meetings, lectures and outside practice. The Scholarship, free of charge, was attended by eight young African cardiologists and by Mrs Bola Ojo, current Executive Director of the African Heart Network, which includes all the cardiac foundations and associations from Africa. Aim of the courses was the training of the African cardiologists in prevention, treatment and rehabilitation of cardiovascular diseases. These health issues are emerging and increasing dramatically in developing countries, due to the lack of diagnostic equipment and medicines. The School has also proposed a new model of rehabilitation and prevention of heart disease for African Countries. This cardiac rehabilitation model is performed "outside hospital", requiring only the presence of the cardiologist who already works within the hospital, together with a device for measuring blood pressure and an ECG for an electrocardiogram at rest, nothing else. After the cardiological evaluation performed by the walking test, during which

the physician and the patient walk together for six minutes at medium-fast pitch in the yard, along the road or in the fields "outside" the hospital, they return in the medical center and repeat the electrocardiogram. If this is similar to the one taken before the walking test and if the patient did not have pain, fatigue, or shortness of breath, the patient can begin his/her rehabilitation in safety levels. The training will consist in walking for about half an hour, most days of the week, along a path specifically created in the streets and fields surrounding the hospital. There may be an overseer, chosen among volunteers and patients who already have overcome the disease, so that the patient could talk with him/her about prevention, for example about the heart damage due to smoking, high blood pressure, the consumption of unhealthy aliments, diabetes and obesity. In this way, cells for cardiac rehabilitation and prevention will be constituted at a cost close to zero. This model can then be extended to all the hospitals of each country, with benefits not easily imaginable, considering the published data of a meta-analysis which shows that the simple practice of physical training after a heart attack reduces cardiovascular mortality by 25%. The African cardiologists who attended the School have accepted the proposal and will bring their data to the Pan African Congress of Cardiology that will be held in Kampala, Uganda, in September 2011.

ABSTRACTS

5.

Development of Cardiac Rehabilitation in Thailand

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Cardiac rehabilitation is already recognized as the multidisciplinary interventions that assist the patient to learn, to get along and to modify their lifestyle after any type of heart disease. The definition, apart from secondary and tertiary prevention, also covers the role of primary prevention in heart disease. Cardiac Rehabilitation which takes place in proper approach: medical evaluation, risk factors counseling, exercise prescription and activity counseling. There are enormous studies to demonstrate of patients' safety in cardiac rehabilitation program. In spite of that cardiac rehabilitation service is still underutilized around the world. The western model might not proper for this region due to lack of understanding of cardiac rehabilitation of other disciplines, limitation of reimbursement. There are many models of cardiac rehabilitation: home-based, hospital based and corporate-based and including primary prevention program. The good indexes to measure the good model are compliance, cost-effectiveness and reduction of morbidity. The crucial step of development of cardiac rehabilitation is to consider the proper model that fit in country's health system especially any reimbursement schematic pattern. The next step is to improve the understanding and knowledge of health personnel regarding what cardiac rehabilitation could do to their patients. This has to be core knowledge that they could set up the cardiac rehabilitation in their center. Then is the next step that is how to boost the people to understand role of exercise and cardiac rehabilitation in their conditions. Thailand now has established formal 16 cardiac rehabilitation programs, 10 in university and government hospitals and 6 in private sections.

The numbers have increase as monthly pass. The initiate of cardiac rehabilitation should emphasizes on getting professional personnel's understanding of the process, set demonstration center and support the setting by expert group. Cardiac Rehabilitation Society of Thailand (CARES-THAI) has established since 1987, under the cooperation of Heart Association of Thailand and Thai Rehabilitation Medicine Association, with very clear statements on enhancing the practice of cardiac rehabilitation in Thailand. The CARES-THAI already implement CARES-THAI ACTION which adapted concepts from EUROACTION program to set the cardiac rehabilitation after discharge from the hospital by one-week interval visit with our cardiac rehabilitation therapist for one month. The data showed that both models had very high attendance and low dropout with favorable outcome in exercise habit but no change in blood chemistry levels significantly.

6.

Cardiovascular Prevention and Rehabilitation – Not a Luxury: The lessons from EUROACTION Study

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Objectives: EUROACTION is a cluster randomised controlled trial of a multidisciplinary preventive cardiology programme aiming to manage coronary and high risk patients and partners to the European targets for cardiovascular prevention.

Methods: In each of 6 countries, one pair of hospitals and general practices was randomised to intervention or usual care.

Results: 946 coronary patients and 1019 high risk people in the intervention (INT) arm and 994 coronary patients and 1005 high risk people in the usual care (UC) arm attended 1 year assessment. Significantly higher proportions of coronary patients in the intervention arm achieved the targets for consumption of saturated fat (55%INT, 40%UC), fruit and vegetables (72%INT, 35%UC) and oily fish (16%INT, 8%UC), physical activity (54%INT, 20%UC), waist circumference (35%INT, 22%UC), blood pressure (65%INT, 55%UC), total cholesterol (78%INT, 71%UC) and use of statins (86%INT, 80%UC). High risk patients showed a higher consumption of fruit and vegetables (78%INT, 39%UC) and fish (83%INT, 67%UC), and a higher proportion achieved the targets for physical activity (50%INT, 22%UC), blood pressure (58%INT, 41%UC), use of statins (38%INT, 22%UC) and ACE inhibitors (29%INT, 20%UC). Similar trends for lifestyle and risk factor management were seen in partners.

Conclusion: The EUROACTION programme helped more coronary and high risk patients and their partners to achieve the European targets for cardiovascular disease prevention in everyday clinical practice. Preventive cardiology care needs a systematic, comprehensive, multidisciplinary approach, which addresses lifestyle and risk factor management by cardiologists, general practitioners, nurses and other health professionals, and a health care system which invests in prevention.

ABSTRACTS

7.

Anti-thrombotic treatment in Acute Coronary Syndrome

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Activation of platelet and coagulation pathway plays an important role in acute coronary syndrome (ACS). Oral dual anti-platelet therapy together with parenteral anticoagulation has been the standard therapy in ACS. Thienopyridines are anti-platelet agents blocking ADP dependent P2Y₁₂ receptor on platelet. The first generation P2Y₁₂ receptor blocker ticlopidine has serious potential side effects, namely, agranulocytosis and cholestatic hepatitis. Second generation P2Y₁₂ receptor blocker, clopidogrel, has been proven effective in studies and clinically widely used in the last decade. However, clopidogrel is a pro-drug that requires bioactivation through CYP2C19 system in liver. There are wide individual variations of responsiveness to clopidogrel as measured by various platelet function tests. Laboratory suboptimal platelet inhibition by clopidogrel has been linked to recurrent ischemic events and stent thrombosis. Patients possessing lost-of-function alleles of CYP2C19 system have both in-vitro and in-vivo diminished effectiveness of clopidogrel. Moreover, there are evidences of adverse drug interaction between clopidogrel and proton pump inhibitor, statin or dihydropyridine calcium channel blocker. Prasugrel, a third generation P2Y₁₂ receptor blocker, has been found to be superior to clopidogrel in preventing cardiovascular death, myocardial infarction or stroke by TIMI38-TRITON study. Ticagrelor, another new P2Y₁₂ receptor blocker, is itself biologically active and it reversibly binds to P2Y₁₂ receptor. It has been shown in PLATO trial that it is superior to clopidogrel in preventing cardiovascular death, myocardial infarction or stroke. Bleeding

complications are caveat of more potent third generation P2Y₁₂ receptor blocker. Platelet function tests in laboratories or at point of care provide invaluable information of individual responsiveness to P2Y₁₂ receptor blocker. Choice of P2Y₁₂ blocker and dosing based on individual platelet function test is a logical option and it offers great potential in optimizing antiplatelet action while keeping bleeding risk abate. Randomized placebo control trials GRAVITAS and TRIGGER-PCI are underway to investigate whether platelet function test can guide us in antiplatelet therapy for optimizing clinical outcome. Low molecular heparin with higher anti-Xa/anti-IIa activity is superior to unfractionated heparin as an adjunctive treatment following thrombolytic treatment of ST-Elevation ACS. In primary percutaneous coronary angioplasty, the choice of anticoagulant includes heparin, low molecular heparin or parenteral direct thrombin inhibitor bivalirudin. Fondaparinux, an anti-Xa agent is associated with catheter related thrombosis. Either low molecular heparin or bivalirudin could be the choice of anticoagulant in non-ST-elevation ACS.

8.

Lipid Management Update

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Dyslipidemia is an important cause and risk factor in the development of atherosclerosis and cardiovascular disease. It is regarded as a modifiable cardiovascular risk factor under most circumstances. Lifestyle modification, such as diet control, cessation of smoking, weight reduction and regular exercise, plays a vital role in the management of dyslipidemia. With the emergence of solid data from different clinical trials, strong evidence supports early use of lipid-lowering drugs (LLD) in achieving therapeutic target lipid level and reducing morbidity and mortality of coronary artery disease, especially in lowering LDL-cholesterol by statins. In refractory cases with suboptimal lipid control, combination of LLD can be helpful and relatively safe. Apart from reinforcing diet and drug compliance, a global approach in tackling other cardiovascular risk factors, such as diabetes and obesity, is an integral part in the successful management of dyslipidemia. In this presentation, the latest lipid management guidelines and trial data will be reviewed with case example as illustration.

ABSTRACTS

WORKSHOP

1.

Sexual Intimacy, Rehabilitation and Cardiac Diseases – Part 1

E CHOW

New Territories West Cluster, Hospital Authority, Hong Kong

Sexuality spans the biological, psychological, social, emotional, and spiritual dimensions of human lives. It is one of the most subtle, but challenging, issues faced not only by patients with cardiac diseases, but also by their partners and health care professionals. Biologically, sexual activity involves physical exertion and psychological arousal. While the overall response is similar to mild-to-moderate intensity exercise for most individuals, the heart rate and blood pressure responses may be higher than that during usual exercise at the same levels due to the excess sympathetic activation. The metabolic response of the different phases of sexual response cycle varies to some extent, and is affected by patient, partner and contextual factors. Although the relative risk of a cardiac event after sexual activity is increased, the additional absolute risk is not as high. The fear, both from the patient and partner, usually outweighs the real physical risk. A risk stratification algorithm helps evaluate the sex-related cardiovascular risk. Cardiac rehabilitation, through exercise training, education and life-style modification, has a unique role in the modulation of cardiovascular risk, including those related to sexual activities. Patients and partners can benefit from specific sexual education and advices, which help eliminate excessive worries and promote better sexuality.

2.

Sexual Intimacy, Rehabilitation and Cardiac Diseases – Part 2

J WONG

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The presentation will begin with a discussion about the essential elements of sexual intimacy and its importance for restoring the male and female self-esteem and their intimate relationship. It will then focus on the psychosocial causes of sexual disinterest, dysfunction and dissatisfaction. The P-LI-SS-IT intervention scheme that outlines the clinical approach of managing sexual difficulties will be introduced so that the audience can relate the scope of intervention to the level of specialized training. The workshop will be completed by a sharing of the required knowledge, skills and comfort level when addressing to the patients' common fears about resuming sexual activity.

3.

Exercise is Medicine™: Prescribing Exercise for the Prevention and Rehabilitation of Cardiovascular Disease

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Physical activity: public health measure in primary prevention

Physical activity is defined as any bodily movement produced by skeletal muscles that results in energy expenditure beyond resting expenditure. Exercise is a subset of physical activity which is planned, structured, repetitive, and purposeful in the sense that improvement or maintenance of physical fitness is the objective. Regular exercise has been proved to improve fitness, prevent unhealthy weight gain and reduce the risk for chronic diseases, including atherosclerotic vascular disease. AHA/ACSM recommends to promote and maintain health with moderate-intensity aerobic physical activity for a minimum of 30 minutes on five days each week or vigorous-intensity aerobic physical activity for a minimum of 20 min on three days each week. Combinations of moderate- and vigorous-intensity activity can be performed to meet this recommendation. In addition, every adult should perform activities that maintain or increase muscular strength and endurance for a minimum of two days each week.

Exercise prescription for individuals with modifiable cardiovascular (CVS) risk factors

Physical activity helps to treat many established atherosclerotic risk factors, including elevated blood pressure, insulin resistance, glucose intolerance, elevated triglyceride concentrations, low high-density lipoprotein cholesterol

concentrations and obesity. The magnitude of the exercise effect is influenced by characteristics of the exercise intervention, individual variation, and whether exercise produces concomitant reductions in body weight as well as lifestyle changes.

Exercise prescription for individuals with CVS disease

Physical activity has risks that must be considered when recommending it for individuals with CVS disease. Despite the potential hazard, which can be minimized by appropriate strategies, exercise training is effective to control the CVS risk factors and symptoms, reduce the cardiac events and mortality. Individuals with cardiovascular disease should be educated about exercise as a therapeutic modality; behavioral strategies may be necessary to increase and maintain physical activity over the lifespan.

ABSTRACTS

4.

Dietary Management to Control Cardiovascular Risk Factors: "the DASH Diet & the TLC Diet"

T TING

Hong Kong Nutrition Association

Lifestyle modification includes physical activity and medical nutrition therapy is definitive therapy for both hyperlipidemia and hypertension to prevent cardiovascular disease. The ATP-III recommends the Therapeutic Lifestyle Changes (TLC) Diet for primary and secondary prevention of CHD. Weight loss for overweight people, reduce saturated fatty acid and trans-fatty acid intake, and increase cardio-protective nutrients such as monounsaturated fatty acid, and dietary fiber are emphasized in TLC diet. The American Heart Association incorporated Diet Approach to Stop Hypertension (DASH) into their current nutrition guideline. DASH diet has been scientifically proven for blood pressure lowering effect. It suggests restriction on salt, fat, and alcohol intake and encourages adequate fiber and potassium consumption. Both TLC and DASH diet emphasize grains, cereals, legumes, vegetable, fruits, lean meats, poultry, fish, and nonfat dairy product. This is recommended that individual with dyslipidemia and hypertension to seek advice from dietitian for TLC and DASH diet to reduce chance of developing cardiovascular diseases.

5.

Telehealth and the Medical Spiritual Dimension: Relationship among Science and Faith. How to Improve Compassion in the Relationship between Doctors, Nurses and Patients

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Telehealth is a non-profit association that promotes the spiritual dimension of medicine. It operates through the Aid against the Suffering, the Development of the Impermanence, the Promotion of Healing and Non-local Healing. The Aid against the Suffering is given through the teaching of spiritual practices such as mindfulness meditation directed to the Acceptance of the Present Moment. Other spiritual practices are also promoted, such as reciting the rosary as a prayer and the repetition of mantra. Specific issues for this purpose have been published by Telehealth, both in the form of books ("Be a Wild Dove", "Praying with Friar Thomas", "When Love blooms" and "St. Mary of Olive Trees - words to relieve suffering") and in the form of iconographic publications (images of Friar Thomas from Olera and of St. Mary of Olive Trees). In order to bring peace and balance, the therapist, who is a physician with a holistic view of medicine for Telehealth, proposes the method of Sat Nam Rasayan, according to the tradition of the Sikh religion. The Development of the Impermanence is a quality that comes after a suitable period of practice of mindfulness meditation that leads to a "Non-Attachment." For this purpose the contemplative prayer of St. Teresa from Avila and St. John of the Cross is also proposed. As a consequence of the practice of mindfulness meditation, Compassion and Feeling of Sharing are spontaneously developed over time. Together with the Doctor Patient Education, they promote Healing. We intend for Healing

a process which is fully internal within the patient and leads to optimize the care of his/her illness to the point of recovery or, if the illness is not curable, to accept it and live in a way as serene as possible. Non-local Healing is a research area for Telehealth: it includes the Distance Prayer as a practice favoring the Healing process and therefore relies on the collaboration with the Cloistered Nuns of Matris Domini Monastery in Bergamo, Italy. The most advanced research involves the Transcendental Consciousness for Healing and the Telehealth method is a technique for Spiritual Healing proposed by Dr. Flavio Burgarella. It is based on an "at distance" evolution of Sat Nam Rasayan: here the Doctor becomes Healer postulating the possibility of transcending time and space with the intention of healing during a particular meditative state. The study of quantum physics, combined with the knowledge of the great spiritual traditions of the past, are the basis on which this line of research moves.

ABSTRACTS

6.

Psychological Characters and Exercise in Patients with AICD

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Sudden cardiac arrest (SCA) accounts for almost 15% of all deaths. SCA can occur in an instant without warning and 40% of SCA is not witnessed. Ninety-five percent of SCA victims die because lifesaving defibrillation therapy was not delivered within four to six critical minutes. The 2006 ACC/AHA/ESC Management of Patients with Ventricular Arrhythmias and the Prevention of Sudden Cardiac Arrest Guidelines have a Class I recommendation for nearly all implantable cardioverter defibrillator (ICD) indications. ICDs are highly reliable and 98% effective in preventing death due to SCA. Cardiac rehabilitation also proves the benefit and safety in patient with automated implantable cardioverter defibrillator. Dubin and colleagues reported that 63% of a cohort of ICD patients aged below 40 years were worried about engaging in exercise. Patient concerns about the ICD and feelings of disability were independently predicted by general as well as disease-specific anxiety. Study by Kapa had conclusion that Patients receiving ICDs have significant rates of baseline psychopathology after implantation. However, psychological assessment scores tend to improve with time. ICD shocks do not appear to significantly impact psychological state. These results suggest the importance of close screening and referral for possible psychopathology in patients receiving ICDs, especially in the peri-implant period. **Exercise prescription:** The individual exercise prescription will be customized according to exercise test intensity, heart rate, and rating of perceived exertion scale were used to shape. The effective training zone is based on a heart rate range from 60-75% of the age adjusted maximum, with an absolute upper limit set at 10-20 beats below ICD activation threshold. The important part of exercise program consists of an initial familiarization phase followed by aerobic improvement phase and final maintenance. Two cases of patient with AICD will be presented and discusses for rehabilitation in workshop.

8.

Type A Behavioural Pattern

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Type A Behavioural Pattern (TABP) originates from the concept of Type A personality which encompassed the characteristics of time pressure, impatience, high competitiveness, intense striving for achievement, over-commitment to work and hostility. Despite initial success in research to find an association between TABP and coronary heart disease (CHD), later studies showed inconsistent or even contradictory results. Instead, hostility has been shown to predict CHD independently of global TABP, and has been increasingly regarded as the pathogenic component of TABP. In addition, recent studies on Type D personality, a pervasive inclination to negative affectivity and social inhibition, have shown its association with CHD. Interestingly, Type D personality seems to show a resemblance to TABP on the dimension of a well-recognized personality trait, namely extraversion and neuroticism. The recent understanding of TABP seems to suggest that modification on psychological risk factors for CHD should be shifted from traditional long-term intervention on global Type A personality to psychological treatment of specific components of TABP, such as hostility and anger, and tendency towards negative affectivity. Anger management intervention based on the principles of cognitive-behavioural theories has yielded promising results in modulating the intensity of anger arousal, and facilitating effective communication and conflict resolution. Although there are few studies on the effectiveness on psychological intervention to modify Type D personality, the intervention seems to share the treatment components on depression and assertiveness training.

7.

"Cardiac Rehabilitation with Hospital-Community Transformation" Can Work?

E CHOW

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While the values of hospital-based cardiac rehabilitation (CRP) are well recognized, it remains an interesting question whether community partnership as a model of CRP can work as well in Hong Kong. In collaboration with Yan-Oi-Tong (YOT), a non-government organization (NGO), an innovative hospital-community CRP model was first developed in the New Territories West Cluster (NTWC) in 2004. The service intended to utilize the mutual strength of hospital and community gymnasium to create a seamless continuum of rehabilitation. The service included a significant proportion of high-risk patients according to the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR) Risk Stratification Criteria for cardiac patients. Notwithstanding, the program compliance and completion rate was high with no major procedure-related complications and mortality. The service outcomes were encouraging, and showed significant improvement in various parameters, with more impressive results seen in exercise capacity, fasting blood glucose and lipid levels. Other improvement, including blood pressure control, body mass index and waist circumference, were also noticed. The proportions of patients without smoking, and those taking anti-platelet agents, lipid-lowering agents, beta-blockers or ACEI/ARB were high and exceeded corresponding British Audit (NACR) requirement. The experience from the NTWC-YOT CRP model supported the feasibility of community partnership as an alternative model of cardiac rehabilitation. The unique strength of community NGOs can serve as a valuable resource for future development of more cost-effective cardiac rehabilitation services.

9.

From Concept to Practice – the Essential Ingredients of "Self-Management"

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With the increasing emphasis on Patient Empowerment in our current healthcare reform and "Self-management" as a key strategy to enhance the management of chronic health conditions, it is important to know not only "what is self-management" or how good it is, but to know the essential ingredients of "self-management" so as to ensure the effectiveness of our clinical practice and interventions. In this workshop, we will be looking at the essential elements of effective self-management programmes as identified by Wagner et al (1996) based on their major literature review of over 400 articles that has provided a general program model for successful self-management interventions. These elements include: 1) collaborative problem definition, 2) targeting, goal setting and planning; 3) self-management training and support services and 4) active and sustained follow-up. Apart from understanding these concepts, we will also discuss the possible applications in our clinical practice in relating to Cardiac Rehabilitation and management of chronic health conditions by-large.

ABSTRACTS

PROGRAM IN PRACTICE

1.

Exercise: A High Yielding Investment for a Healthier Future

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Modern technology has reduced the energy needed for activities of daily living, and shifts the living style more into sedentary than active work. This sedentary lifestyle is one of the major risk factors for cardiovascular disease (CVD) and a rising prevalence of metabolic syndrome worldwide. Cost of **Cardiovascular Risk Factors:** CVD risk factors such as overweight and obesity, poor dietary habits, and physical inactivity can be combated and controlled by adherence to dietary and physical activity changes. In the year 2000, the annual estimated direct medical cost of physical inactivity was US \$76.6 billion. Physically active individuals save an average of US \$184 in health care cost and reduce hospitalization compared with inactive individuals.

Benefits of Exercise: Physically active individuals tend to develop less coronary heart disease than those of sedentary. If coronary heart disease develops in active individuals, it occurs at a later age and tends to be less severe. Regular exercise decreases the chance of CVD, thromboembolic stroke, hypertension, type 2 diabetes mellitus, osteoporosis, obesity, certain cancers, anxiety and depression.

Types and Dose of Exercise: For health promotion and maintenance, the American College of Sports Medicine and the Centers for Disease Control and Prevention recommend healthy adults engaging in a minimum of 20 to 30 minutes of accumulated, moderate-to-vigorous intensity aerobic physical activity on most of the days for a week in addition to customary activities of daily living tend to be of light intensity or last less than 10 minutes in

duration. Furthermore, individuals should perform activities that maintain or increase muscular strength and endurance a minimum of two days each week. Increasing the level of physical activity appears to further enhance beneficial effect.

Exercise for Managing Metabolic Syndrome: Lifestyle modification with weight reduction and increased physical activity is the primary clinical therapy of the metabolic syndrome. Regular exercise modifies metabolic risk factors by reducing adipose tissue mass, improving glycaemic control and increasing whole-body oxygen uptake capacity. These are associated with a reduction in the risk of developing CVD and many chronic diseases.

Cardiovascular Risks of Exercise: Exercise only provokes cardiovascular events in individuals with preexisting heart disease but not in individuals with normal cardiovascular systems. Consequently, the risk of exercise for any population depends on its prevalence of cardiac disease. Pre-exercise health screening and risk assessment by a trained physiotherapist is important for individuals before taking up safe and effective self-guided physical activity regimens, or before signing up for primary or secondary prevention exercise programs.

ABSTRACTS

PUBLIC CONFERENCE

1.

Weight Reduction Program

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Obesity is a worldwide epidemic. Overweight or obesity is a major hazard to health. It is a risk factor for many chronic illnesses; hypertension, diabetes, stroke, coronary artery disease and some form of cancers. If people don't want to be part of the epidemic, prevention is better than any way of weight reduction. Weight reduction is pertinent in preventing cardiovascular disease in people who are at risk. It is also important as part of the rehabilitation program for patients who already suffered from cardiovascular disease. Weight reduction program is always tailored to accommodate different goal and different co-morbidity of the individual. It consists of 3 components; they are lifestyle modification including dietary advice and exercise prescription; psychological support including peer self help group and professional counseling; the last but not the least is sustainability of dietary and exercise habit through regular phone follow-up and post-program debriefing session.