



UPM
UNIVERSITI PUTRA MALAYSIA
BERTILAMU BERBAKTI

1ST SCIENTIFIC SEMINAR ON **BODY COMPOSITION AND NUTRITION**

Organized by:

Department of Nutrition & Dietetics
Faculty of Medicine and Health Sciences

Research Centre of Excellence
Nutrition & Non-Communicable Diseases
Faculty of Medicine and Health Sciences

In collaboration with:

InBody

3 GOOD HEALTH
AND WELL-BEING





**DEPARTMENT OF
NUTRITION AND DIETETICS**

SCIENTIFIC PROGRAMME

1ST SCIENTIFIC SEMINAR ON BODY COMPOSITION AND NUTRITION

"Advanced Body Composition Analysis: Application in Community and Clinical Nutrition"

Date: 5th July 2019

Venue: Auditorium HUPM, UPM

Time	Programme
0800	Registration/ Breakfast/ Body Composition Assessment
0900	Opening Ceremony Assoc. Prof. Dr. Hj Muhammad B. Mohd Isa, Director, HPUPM, Malaysia
	Advanced Body Composition Analysis: Application in Community Nutrition Chairperson: <i>Emeritus Prof Dr. Khor Geok Lin</i> , UPM, Malaysia
0930	Usefulness of body composition assessment in community nutrition and health programmes: A success story from Nutrition Month Malaysia <i>Dr. Tee E Siong</i> , Chairman of TWG NMM, Malaysia
1000	Validity and reliability of body composition assessments <i>Ms. Lisa Cha Seung Joo</i> , InBody (Korea), Korea
1030	Coffee Break/Poster Exhibition/ Body Composition Assessment
1100	Body composition of older persons and its association with sarcopenia <i>Dr. Sally Suriani Ahip</i> , Klinik Kesihatan Kota Samarahan, Malaysia
1120	Body composition assessment among school-aged children <i>Assoc. Prof. Dr. Chin Yit Siew</i> , UPM, Malaysia
1140	Body composition in sports nutrition: Research and strategies for sports performance <i>Dr. Sareena Hanim Hamzah</i> , UM, Malaysia
1200	Lunch/ Poster Exhibition/ Body Composition Assessment
	Advanced Body Composition Analysis: Application in Clinical Nutrition Chair: <i>Prof. Dr. Zalilah Mohd Shariff</i> , UPM, Malaysia
1430	Understanding advanced body composition analysis <i>Ms. Erica Kim</i> , InBody (Malaysia), Malaysia
1450	Application of BIA in Intensive Care Unit (ICU) <i>Dr. Lee Jae-Myeong</i> , Korea University Anam Hospital, Korea
1530	Sharing of clinical experience in body composition assessment among athletes <i>Assoc. Prof. Dr. Mohamad Shariff A Hamid</i> , UM, Malaysia
1550	Importance of body composition assessment in haemodialysis patients <i>Assoc. Prof. Dr. Chan Yoke Mun</i> , UPM, Malaysia
1610	Prize Giving and Closing Remarks <i>Assoc. Prof. Dr. Norhaizan Mohd Esa</i> , Programme Director, UPM
1640	Afternoon tea break
1700	End

INTRODUCTION

This one-day Scientific Seminar themed Advanced Body Composition Analysis: Application in Community and Clinical Nutrition brings you the latest research updates on body composition and nutrition. The topics comprised advanced body composition analysis including the understanding and assessment of body composition in different populations – children, adults, athletes, and hospitalized patients. The scientific seminar allows delegates to acquire deep understanding on the validity and reliability of body composition analysis and its interpretation. By understanding human body and health through body composition, this event is also in line with the Sustainable Development Goal (SDG) No.3, 'Good Health & Wellbeing'.

The research updates and interesting talks will be presented by prominent speakers, both local and international. The seminar also features poster presentations of local and international studies. Being the first of its kind in Malaysia, this seminar is a good platform for sharing and discussing research outcomes related to public health nutrition, which encompassed information on body composition, nutrition and growth across life stages. This seminar is ideal for academics, physicians, clinicians, public health professionals (eg, nutritionist, dietitians, nurses, sports trainers, etc), postdoctoral fellows, students and researchers with an interest in body composition and its application to human nutrition and growth.

ABOUT US

DEPARTMENT OF NUTRITION AND DIETETICS FACULTY OF MEDICINE AND HEALTH SCIENCES, UNIVERSITI PUTRA MALAYSIA

Nutrition and lifestyle play an important role not only in healthcare, but also in the prevention and management of disease. Along with the rapid social and economic growth in Malaysia, lifestyle, diet and physical activity of our society have experienced dramatic changes, which affect the morbidity and mortality rates in Malaysia, mostly due to diet-related diseases including heart disease, diabetes, obesity, and hypertension. Given the substantial increase of health awareness, and readiness to access information from electronic and print media, it is important to ensure that Malaysian are receiving accurate information on health, diet and nutrition. Therefore, institutions of higher learning are playing important role in disseminating accurate information on health as well as developing the skills and knowledge in these areas particularly in the scope of nutrition and dietetics, both nationally and internationally.

History of the Department

The Department of Nutrition and Community Health, Universiti Putra Malaysia was established on 1st April 1992 in conjunction with the establishment of Faculty of Human Ecology. On 1st May 1999, the name of the department was changed to Department of Nutrition and Health Sciences which was further renamed to Department of Nutrition and Dietetics. With a total of 25 academic staffs, the department is currently head by Associate Professor Dr. Norhasmah Sulaiman.

Department of Nutrition and Dietetics offers two undergraduate programs which are:

- Bachelor of Science in Nutrition and Community Health with honours
- Bachelor of Science in Dietetics with honours

Besides undergraduate programs, Department of Nutrition and Dietetics, Faculty of Medicine and Health Sciences UPM is renowned for its postgraduate program (Master of Science and Philosophy of Doctorate) in the area of Community Nutrition, Nutritional Sciences, Clinical Nutrition and Nutritional Biochemistry.

With the close working relationship among the academicians and linkages with other institutions, our leading research areas among others include:

- Nutritional status at different life stages
- Food and Nutrition Security
- Nutrition Education and Health Promotion
- Nutrition and Cognitive Development
- Nutritional Composition of Foods
- Bioavailability Studies
- Functional foods and nutraceutical products
- Nutrition and Metabolic Diseases
- Food Service Management
- Maternal and Child Nutrition

Department of Nutrition and Dietetics UPM is committed to have strong affiliation and anticipating sustainable working collaborations with other institutions. We have established linkages with various universities, government agencies, non-government organizations and industry partners, at both national and international levels. We collaborate on research, consultancies, community services, students' and staffs' activities and others. Please contact us at norhasmah@upm.edu.my for further information.

RESEARCH CENTER

Research Centre of Excellence, Nutrition and Non-communicable Diseases (RCoE-NNCD)
In view of non-communicable diseases (NCDs) contribute up to 60% of all deaths especially in low and middle-income countries, with nutrition plays a central role in the prevention and management of NCDs, the RCoE-NCDD was established in January 2014, with the aim as the leading centre on nutrition research for the prevention and management of NCDs in the nation. There are 5 core focus areas of RCoE-NCDD, as depicted in the following figure:



To date, more than 50 projects from different disciplines were established under the great initiative of researchers from RCoE-NCDD, with a total fund generated amounted to more than RM 7 millions. Our research collaborators among all are:

- Ajinomoto Malaysia Ltd
- Central Sugar Malaysia
- Cuckoo International (Malaysia) Pte Ltd
- Friesland Campina (Singapore)
- Fonterra Brands (Singapore) Pte Ltd
- InBody (Asia) Pte Ltd
- Massey University New Zealand
- National Kidney Foundation Malaysia
- Nestlé Malaysia Ltd
- South Australian Health Medical Research Institute
- University of British Columbia Canada
- University of Eastern Michigan
- University of Wollongong
- Wayne University USA
- World Vision Malaysia
- Yakult Honsha Co. Ltd
- Various Non-government organizations and Universities

With the well-blend of researchers from nutritional sciences, community nutrition and clinical nutrition, we welcome collaboration from universities, industries, research institutes and anticipate that RCoE-NCDD will uptake more impactful projects in relation to the better prevention and management of NCDs in the near future. For more details, please contact us at email: cym@upm.edu.my

WELCOME

Distinguished Guests, Invited Speakers and Seminar Participants

It gives me great pleasure to extend a very warm welcome to all guests and participants of this seminar to the Universiti Putra Malaysia Teaching Hospital (HPUPM). We are delighted and honored to organize this First Scientific Seminar on Body Composition and Nutrition with the theme 'Advanced Body Composition Analysis: Application in Community and Clinical Nutrition'.



I would like to extend a special welcome to all international and local guest speakers who have taken the time out from their busy schedule to share their invaluable findings and expertise with us and to discuss breakthrough issues on body composition and nutrition.

I believe this seminar will provide a good opportunity and an avenue to enhance networking opportunities amongst scientists, experts and industry professionals to exchange experiences, upgrade their expertise, and strengthen collaboration in the field of body composition and nutrition. As the dean of this Faculty, I acknowledge the importance of the topics covered by our distinguished guests' speakers during this seminar.

Ladies and Gentlemen, I congratulate the organizing committee and members of the Department of Nutrition and Dietetics for their commitment in organizing this seminar. I wish you all a successful and productive time in this one day seminar.

Thank you.

Prof. Dr. Zamberi Sekawi
Dean
Faculty of Medicine and Health Sciences
Universiti Putra Malaysia

WELCOME

Assalamualaikum and Salam Sejahtera

Welcome

On behalf of the organizing committee, may I extend a very warm welcome to all participants of our 1st Scientific Seminar on Body Composition and Nutrition held at the Auditorium Universiti Putra Malaysia Teaching Hospital. The aim of this seminar is to bring together experts both from abroad and from Malaysia in the area of Body Composition and Nutrition.



The term Body Composition is used to describe what the body is made of. It includes fat, protein, minerals and body water. It also describes weight more accurately than Body Mass Index (BMI). Body composition data can make the basis for a wide variety of therapeutic, health and fitness programs. Clinically, body composition analysis along with non-pharmacological nutrition and physical activity prescriptions provide the foundation upon which further treatment is based. Only body composition analysis can determine how much muscle and fat are lost or gained as the result of any nutrition, exercise, or pharmaceutical prescription. By measuring body composition, a person's health status can be more accurately assessed and the effects of both dietary and physical activity programs better directed. There are many methods for body composition analysis eg. DEXA, BIA, air displacement plethysmography. However, each method does possess its own individual limitation which will be explained further by our speakers in this seminar.

This seminar is a unique platform for each and every one of us to exchange knowledge, share findings from their own research, provides the opportunities for collaboration with some of the leaders in body composition research in the country and from Korea.

I sincerely hope that you will enjoy the seminar and may it inspire future development work in body composition research for nutrition and health implications.

Thank you all for your commitment and support for this seminar and wishing that each of you will have a fruitful time.

Assoc Prof Dr Norhaizan Mohd Esa

Chairperson

1st Scientific Seminar on Body Composition and Nutrition

SPEAKER 1

BIOGRAPHY

E-Siong Tee PhD, is President of the Nutrition Society of Malaysia (NSM). In this capacity, he has led the implementation of various community promotion programs for over 20 years. He is also Chair of the National Steering Committee for Nutrition Month Malaysia. He represents NSM in several Technical Working Groups in the Ministry of Health Malaysia, including the National Coordinating Committee for Food and Nutrition (NCCFN), the Technical Working Group for Nutritional Guidelines and committees related to Malaysian Food Regulations and Codex Alimentarius. Dr Tee is also a member of the Board of Scientific Directors of the International Life Sciences Institute (ILSI) (Southeast Asia Region) and Chairman of the Southeast Asia Public Health Nutrition (SEA-PHN) Network. Dr Tee was Head of the Cardiovascular, Diabetes and Nutrition Research Centre of the Institute for Medical Research (IMR) until his retirement in February 2002, after serving for 30 years.



ABSTRACT

PROMOTION OF AWARENESS OF IMPORTANCE OF BODY COMPOSITION ASSESSMENT IN COMMUNITY NUTRITION PROGRAMME: SUCCESS STORY FROM NUTRITION MONTH MALAYSIA

Tee ES¹, Muhaini MH² & Chwee LYY²

¹Chairman

²Secretariat, National Steering Committee, Nutrition Month Malaysia

Nutrition Month Malaysia was initiated in 2002 as a nationwide community nutrition promotion programme by three leading professional bodies, namely the Nutrition Society of Malaysia (NSM), the Malaysian Dietitians' Association (MDA) and the Malaysian Association for the Study of Obesity (MASO), together with the support of the Ministry of Health (MOH). NMM strives to promote greater awareness on healthy diet and active lifestyle by disseminating unbiased and practical nutrition information. The main activities each year include a family carnival, publication of practical nutrition guidebooks and several other educational materials as well as community engagement sessions (www.nutritionmonthmalaysia.org.my). The annual family carnival provides opportunities to families to learn about food and nutrition through various fun educational activities. The highlight of the carnival is free nutrition screening, where visitors could do a screening for body composition analysis, followed by professional advice from nutritionist or dietitian on the results of the assessment. A free dietary analysis was also provided to the visitors. The body composition analysis service, provided by InBody for the past 2 years has been hugely successful and a crowd puller for the carnival. The numbers of visitors screened were about 1,000 each carnival. The parameters analysed were body composition analysis (total body water, protein, mineral and body fat mass), muscle-fat analysis (weight, skeletal muscle mass and body fat mass), obesity diagnosis (Body Mass Index, percentage of body fat and waist-hip ratio) and others. With the data, nutritionists and dietitians were able to assess the nutritional status of the visitors more accurately and tailor their counselling appropriately. Visitors appreciate the opportunity to have a better insight into their body composition and how it relates to disease risk. The NMM is an excellent avenue to promote the awareness of importance of body composition to the public, alongside other nutrition advice to the public. NMM, now a landmark health programme in the country, will continue to do its part to promote nutritional well-being of Malaysians through this strategic alliance of 3 professional bodies, with the support of MOH and the collaboration of several food & beverage and health industry companies.

SPEAKER 2

BIOGRAPHY

Ms. Lisa Cha is a registered dietitian in Korea. She has graduated Sookmyung women's university majoring in food and nutrition. She has also finished her research internship in the Nutritional Immunology Lab in the same university. She is currently working with InBody CO. Ltd. as a clinical specialist for overseas countries, mainly supporting training and application in medical fields. Her role is mainly supporting seminars worldwide, and her main seminars till now would be PENSA, ESPEN and MDA in Malaysia.



ABSTRACT

IS BODY COMPOSITION MEASUREMENT WITH BIA (BIOELECTRICAL IMPEDANCE ANALYSIS) ACCURATE? DIFFERENT TECHNOLOGIES OF BIA AND VALIDITY OF INBODY

Lisa Seungju Cha¹

¹*Clinical Team, BWA Department, InBody CO., Ltd.*

The present session is to introduce what BIA(Bioelectrical Impedance Analysis) is along with different BIA technologies currently in the market. These different technologies can lead to discrepancies in certain populations, so there should be considerations made when choosing a BIA device. Difference and limitations in each technology will be introduced within the session and validity of the InBody compared to gold standard methods in measuring body composition, such as DEXA, Dilution methods.

SPEAKER 3

BIOGRAPHY

Dr Sally Suriani Ahip is a Family Medicine Specialist, with specialisation in Community Geriatrics. She is currently the Family Medicine Head of Department, based at Klinik Kesihatan Kota Samarahan, Kuching, Sarawak. To date, Dr Sally has actively involved in more than 10 researches, with a wide spectrum of topics in the area of non-communicable diseases. She is also a member of several professional affiliations, the Royal Australian College of General Practitioners, Academy of Family Physicians Malaysia and Malaysia Society of Hypertension, to name a few. Being a familiar face in local and international conferences, she has presented various papers ranging from breastfeeding training for the health professionals to topics on infertility and various diseases. Her passion in her work and excellent performance has earned her Distinction in Service Awards twice throughout her tenure.



ABSTRACT

BODY COMPOSITION OF OLDER PERSONS AND ITS ASSOCIATION WITH SARCOPENIA

Dr Sally Suriani Ahip¹

¹Klinik Kesihatan Kota Samarahan, Malaysia

Population ageing is accelerating rapidly worldwide, from 461 million people older than 65 years in 2004 to an estimated 2 billion people by 2050. This is attributable to global improvements in health care systems, declining fertility and mortality rates, and socioeconomic development. Frailty is a public health problem in an ageing population. It is a state of vulnerability to poor resolution of homeostasis after a stressor event and is a consequence of cumulative decline in many physiological systems during a lifetime. This cumulative decline depletes homeostatic reserves until minor stressor events trigger disproportionate changes in health status. Frail elderly have a higher risk of disabilities, falls incidents, hospitalization, institutionalization and death compared to non-frail elderly. Among the core components of frailty status in the older population are sarcopenia, loss of muscle strength and nutritional status. Sarcopenia, the loss of skeletal muscle mass and function with age is associated with disability, morbidity and mortality. Bio-Impedance Analyser is a valid instrument for assessment of body composition, which is essential for determining muscle mass and nutritional status especially in the older population. The BIA is considered the main approach in sarcopenia assessment in community-based screening programs due to its portability and reasonable cost. We have been conducting a national research to advance knowledge in the topic of frailty and sarcopenia among older persons in Malaysia. We will discuss the application of BIA in frailty studies and share with you some preliminary findings from our research.

SPEAKER 4

BIOGRAPHY

Dr. Chin Yit Siew is the Head of Community Nutrition Unit, Department of Nutrition and Dietetics, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia (UPM). She is the Council Member of Nutrition Society Malaysia (NSM) and Associate Editor of BMC Public Health. Her field of specialization in community nutrition has prompted research interests that include child and adolescent nutrition, nutrition education and promotion, behavioral nutrition and health, body image, disordered eating and obesity, and early nutrition and allergic diseases. Her research interests are not limited to general population but also among marginalized population such as indigenous children and mothers, refugee children and mothers and children living in welfare homes, as well as vegetarians. To date, she led 12 research projects that were supported by both private and public funding, with various scientific publications, including journal articles, proceeding, modules, book chapters, and policy papers. She has supervised 4 PhD students and 16 MSc students (15 had graduated).



ABSTRACT

BODY COMPOSITION ASSESSMENT AMONG CHILDREN AND ADOLESCENTS

Chin YS¹

¹*Department of Nutrition and Dietetics, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia*

Overweight and obesity among children population remain as a major public health problem. In Malaysia, the prevalence of children under 18 years of age has increased almost twofold from 6.1% in 2011 to 11.9% in 2015. The National Health and Morbidity Survey (NHMS) 2017 has revealed that about one-third (30.4%) of Malaysian adolescents were overweight and obese. Given the high prevalence of overweight and obesity among children, it is vital to have a valid and reliable assessment to detect childhood obesity. Body mass index (BMI) is one of the most common indicators to define obesity due to its simplicity and low-cost characteristics. However, BMI-for-age does not distinguish between body fat and lean mass, which may lead to misclassification of body weight status. While rapid growth and development occur during childhood and adolescence, it is crucial to assess and monitor the changes of body composition, including body fat and lean mass among children and adolescent population. Recently, studies suggested that a more comprehensive body composition assessment is needed to measure childhood obesity. As compared to standard methods such as dual-energy X-ray absorptiometry (DXA), computed tomography (CT) or magnetic resonance imaging (MRI), bioelectrical impedance analysis (BIA) seem to be a better alternative to BMI as is relatively inexpensive and easy to use among the children population. Moreover, studies had reported the reliability and validity of BIA among children population. BIA is suggested to provide a practical and valid measurement of body composition for children as compared to BMI-for-age. In conclusion, body composition assessment via BIA could be used for obesity screening during the childhood and adolescence as well as to evaluate and monitor their nutritional status.

InBody

See what you're made of

“Body Composition Analysis = InBody Test”

Focusing on weight loss alone is not enough. We're moving the conversation away from BMI and weight loss and teaching the public on the importance of fat loss and muscle gain.

We continuously push ourselves to be better than yesterday to create a better world for today and the generations to come. We're looking to the future with every new product that is produced with the world-best technology.



SPEAKER 5

BIOGRAPHY

Dr. Sareena currently is a senior lecturer and was the former Deputy Director (Research & Development) at the Centre for Sport and Exercise Sciences, University of Malaya. She teaches and researches within the area of Sports Nutrition and Biochemistry of Exercise. Her primary interest concerns the association of nutrition with biochemical, metabolic and physiological responses to exercise. Dr. Sareena's research is focused on the influence of natural products such as herbs, honey, soybean and local fruits on antioxidant activities, oxidative stress, hormonal responses, substrates oxidation and exercise performance. Her research interest also includes the influence of different type and amount of carbohydrate diets on exercise energy metabolism and performance, as well as on appetite regulation and body weight management. Recently, she involves in research projects on the classification of body shape using 3D body scanning technology in athletes and development of Sports Nutrition based mobile application. At present, Dr. Sareena is the Executive Member of the Asian Nutrition Society for Sports and Health (ANSSH).



ABSTRACT

BODY COMPOSITION IN SPORTS NUTRITION: RESEARCH AND STRATEGIES FOR SPORTS PERFORMANCE

Sareena Hanim Hamzah¹

¹Centre for Sport and Exercise Sciences, University of Malaya

Athletic sports performance is dependent on the health- and skill- related components. To some extent, these fitness components depend on body composition (BC) i.e. lean body mass (LBM) and body fat (BF). High LBM contributes to strength and power athletes such as weightlifters, combat athletes, and track and field throwers. Whereas, low BF supports endurance, speed and agility for endurance athletes such as distance runners, cyclist and triathletes. Furthermore, high LBM coupled with low BF is related to improve strength to weight ratio and athletic performance in aesthetic and weight class sports. A positive energy balance with energy dense diet combined with a well-designed strength training program provides the most effective protocol to increase LBM. Whilst, reducing BF in athletes can be achieved through high-quality weight loss protocol i.e. caloric deficit combined with training. However, these protocols should be carefully planned to prevent LBM loss and BF gain that potentially reduces sports performance. Other considerations to achieve these goals include the quantity, quality and timing of protein intake and its distribution throughout the day. Frequent BC measurement will assist the sports nutritionist to develop specific dietary interventions, and athletic trainers to create and evaluate training programs. This presentation highlights the factors to consider and research-based dietary strategies for weight management in athletes which also can be used by physically active individuals.

SPEAKER 6

BIOGRAPHY

Erica Kim is Managing Director cum Clinical Specialist in InBody Asia (Malaysia) Sdn. Bhd. Having started her career with International clinical support in InBody (HQ Korea), she expanded her expertise in body composition analysis into healthcare and wellness industry in Asia-Pacific regions. With based on Kuala Lumpur as a head of InBody Asia (Malaysia) which is a direct subsidiaries from InBody Co., Ltd. (Korea), she is actively participating to various movements and activities to improve the knowledge on body composition in Malaysia as well as Southeast Asia.



ABSTRACT

UNDERSTANDING ADVANCED BODY COMPOSITION ANALYSIS

*Erica Kim Sung Eun*¹

¹*Managing Director cum Clinical Specialist, InBody Asia (Malaysia) Sdn. Bhd.*

Professional Body Composition Analyser provides various and advanced parameters in its results sheets, and some of the parameters may need further knowledge to interpret in precise way. This session will help participants to get better understandings of key parameters in regards to definitions and actual examples.

SPEAKER 7

BIOGRAPHY

Dr. Prof. Jae-Myeong Lee is an associate professor of Department of Acute Care Surgery, Department of Surgery, Korea University Anam Hospital, Seoul, Korea and she is also a Critical Care Specialist for surgical intensive care unit of Korean University Anam Hospital. She is very active general surgeon in charge of taking care of critically ill patients and severely injured multiple trauma patients. She also got many scientific awards lists below and published many articles and book chapters eagerly.



ABSTRACT

APPLICATION OF BIA IN INTENSIVE CARE UNIT

*Jae-Myeong Lee*¹

¹*Department of Acute Care Surgery, Surgical Intensive care specialist, Korea University Anam Hospital, Korea University College of Medicine, Goryeodae-ro 73, Seongbuk-gu, 02841, Seoul, Korea*

As a noninvasive method, BIA is widely used in clinical settings because it provides a convenient tool to easily and quickly examine body composition at a patient's bedside. In particular, the PhA is a useful indicator of nutritional status, and hence for the patient's overall condition. BIA studies on critically ill patients are sometimes doubtful due to the concern that their severely imbalanced state of body fluids might affect BIA results. There are many factors that interfere with BIA measurements that are currently not well understood. Fluid status variations such as infusions with large amounts of fluids, peripheral edema, over-hydration, which are frequently observed in critically ill patients, can affect the BIA parameters. Body weight measured in the ICU also may not be accurate because of the multiple devices, fluid lines, and drainage systems that may be attached to the patient. Even though there are many unknown factors affecting BIA, very interestingly, BIA parameters such as impedance, reactance, and phase angle showed a definite difference between survivors and non-survivors and a strong predictive power for mortality of critically ill patients according to our research. And about the skeletal muscle mass measurement for the critically ill patients in the ICU, the accuracy of BIA was high and comparable to that of CT scan in detecting low SMA from critically ill patients without edema. Furthermore, it can figure out existence of edema right after the measurement. BIA is simple, portable, and safe and has a low cost and short time required. It can be useful for the ICU patients and it needs more study for its validation for the ICU patients.

SPEAKER 8

BIOGRAPHY

Assoc. Prof. Dr Mohamad Shariff Bin A Hamid, is a Consultant Sports Medicine Specialist under the Sports Medicine Department, University Malaya Medical Centre and an academician in the Sports Medicine Unit, Faculty of Medicine, University Malaya. Dr Shariff works very closely with the National Sports Institute of Malaysia in Bukit Jalil. He is a Visiting Consultant in Sports Medicine from 2001 until today. He has vast experience in managing sports-related injuries. Injuries vary from acute, repetitive or chronic injuries to more complex cases. Dr Shariff has a particular interest in musculoskeletal ultrasound. He utilized the machine as one of the points of care, quick and reliable tools in managing his patient in the clinic. He works with Musculoskeletal Radiologist in organizing few musculoskeletal ultrasound workshops at national and international conferences for the past few years. Presenting both nationally and internationally around the topic of sports medicine and rehabilitation, he is also embarking on multi-centre clinical trials on patellofemoral studies and PRP related studies. He has published several scientific publications that are a



ABSTRACT

SHARING OF CLINICAL EXPERIENCE IN BODY COMPOSITION ASSESSMENT AMONG ATHLETES

Mohamad Shariff bin A Hamid¹

¹Unit of Sports Medicine, Faculty of Medicine, Universiti Malaya

The type of activities and movements during each sport are unique and involved different body physical and physiological demands. Several studies had attempted to describe specific component of physical and physiological factors that affect performance in different sports, Body composition and somatotype of an individual plays a significant role in sports performance beside other factors such as physical fitness, physiological fitness, skill and psychological strength. In this session body composition assessment among athletes at various levels of participation (from recreational athletes to elite levels) will be discuss.

SPEAKER 9

BIOGRAPHY

Dr Chan Yoke Mun is a clinical dietitian at the Department of Nutrition and Dietetics, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia (UPM). She is currently leading the Research Centre of Excellence, Nutrition and Non-communicable Diseases UPM and was the former head of Medical Gerontology Laboratory, National Research Institute on Ageing Malaysia. Her research interests are but not limited to chronic diseases affecting elderly people, nutrition epidemiology and quality of life issues, with strong affinity on research related to renal and bone nutrition. To date, she led 19 research projects and has more than 100 publications including journal articles, modules, national guidelines and books. Dr Chan is recognised as key opinion leader and member of expert panel for various national and international committees.



ABSTRACT

IMPORTANCE OF BODY COMPOSITION ASSESSMENT IN HEMODIALYSIS PATIENTS

Chan Yoke Mun¹

¹*Department of Nutrition and Dietetics, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia*

Evaluating body weight status using body mass index, BMI is a routine assessment of nutrition status in hemodialysis patients. While higher BMI is often associated with better outcomes in dialysis patients including better survival rate, it is well recognised that BMI does not differentiate between muscle mass and adipose tissue, making the proper interpretation of the effects of obesity on outcomes in dialysis patients remain unknown. Several recent studies illustrate the magnitude of the above problem and reinforce the notion that many features of body composition are masked by considering body weight as a whole. This problem might be aggravated in hemodialysis patients in the presence of edema. In addition, individuals with higher BMI usually have both higher muscle and fat mass than those with lower BMI, signifies the need to address query of which component is associated with mortality outcome among patients receiving hemodialysis. This presentation will shed information on the importance of body composition assessment on nutritional status and other clinical outcomes among hemodialysis patients.

POSTER PRESENTATION



BODY COMPOSITION

- BC01** Associations of parental weight status and parental feeding practices with BMI-for-age of secondary school students in Labuan Federal Territory, Malaysia
***Ho SF**, Chin YS and Lim PY*
- BC02** Effect of parity on bone mineral density, physical activity and calcium intake among women in Bangi, Selangor
***Nur SN** and Norlida MD*
- BC03** Association of body fat composition with knowledge, attitude and practice of healthy eating among nurses in Cheras Rehabilitation Hospital
Sakinah K
- BC04** Body composition among male students in Universiti Kebangsaan Malaysia
***Siti NZ**, Razalee S and Haslaniza H*
- BC05** Body composition and health-related quality of life among elderly with chronic obstructive pulmonary disease in respiratory clinics
***Nor FY**, Ummi NDT, Barakatun NMY, Siti NAA and Noraida O*
- BC06** Comparison of athlete's body composition on weight sport categories
***Kurnia MS**, Mirza HSTP, Beta DKD, Qomariah KH and Rahayusari R*
- BC07** Correlation between body image, nutrition intake, and nutrition status on weight sports athletes category in student activity unit (UKM) Universitas Gadjah Mada, Indonesia
***Mirza HSTP**, Kurnia MS, Beta DKD, Qomariah KH and Rahayusari R*
- BC08** Association of sugar intake with obesity risk in young adults
***Chew WL**, Tan YK and Satvinder K*
- BC09** Body composition changes among first year female students in Universiti Kebangsaan Malaysia
***Razalee S**, Maisara WA and Nur AAA*
- BC10** Body Mass Index (BMI): Application on Adult Malaysian State Athletes
***Chai WJ** and Loo LH*
- BC11** Associations of milk feeding practice and milk appetite with nutritional status among children aged 2 to 4 in Pusat Anak Permata Negara (PERMATA Negara), Klang Valley
***Rasyidah A**, Nur AAAR and Nurul Husna MS*
- BC12** Bioelectrical Impedance Analysis (BIA) for children body composition assessment compared to Dual-energy x-ray absorpsiometry (DEXA): A literature review
***Aviria E** and Bianda A*
- BC13** Investigating changes in nutritional and functional status during Ramadan intermittent fasting among hemodialysis patients: A prospective observational study
***Nurul IHA**, Mohamad SMA, Lim JH, Nor FZ, Christopher TSL, Rosnawati Y, Abdul HAG, Tilakavati K and Zulfitri 'AMD*
- BC14** Overweight and obesity among children aged four to six years old in Bandar and Jugra, Kuala Langat Selangor: Maternal Body Mass Index and feeding practices
***Asrawati AA** and Norhasmah S*
- BC15** Anthropometric measurement and body composition among male trainees in Police Training Centre (PULAPOL), Kuala Lumpur
***Noorul SMR**, Ojilah N and Razalee S*



Scan me

POSTER PRESE

NUTRITION

- NU01** Relationship between walking steps and food intake with Body Mass Index (BMI) among female students in Universiti Kebangsaan Malaysia
*Nor AJ, Arnida HT and **Noor SSS***
- NU02** Higher prevalence of term small for gestational age than term low birth weight
Lee SS, Loh SP, Raman S, Tusimin M, Ling KH and Rahim FK
- NU03** The differences and overlapping concept of frailty and sarcopenia
Camilla WN, Siti NAA, Rosita J
- NU04** Social media usage, emotional distress and body weight status among university student with and without disordered eating
*Teoh AN, Gan ML and **Satvinder K***
- NU05** Effects of *Morinda citrifolia* leaves on streptozotocin induced rats in prevention of diabetic retinopathy
Tang ST, Amin I, Nurul HS and Zulfitri 'AMD
- NU06** Stress, eating behaviour and body mass index (BMI) among postgraduate students in Universiti Kebangsaan Malaysia (UKM), Bangi Campus
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- NU07** Dietary behaviour and food consumption pattern of children based on weight status: Do overweight/obese children eat differently?
*Ng CM, **Satvinder K**, Koo HC, Yap RWK, Firdaus M and Yim HS*
- NU08** Higher chewing count associated with favorable anthropometric indices of obesity
Asyraf H and Adam
- NU09** The effects of acute coffee intake on cardiorespiratory fitness (CRF) among students at International Islamic University Of Malaysia, Kuantan Campus (IIUMK)
Siti NMT and Mohd Yusof Mohamad
- NU10** Effect of different drying methods and ethanol:water ratio of solvent on phenolic content antioxidant and antihyperglycaemic activities of drumstick tree leaves (*Moringa oleifera*)
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