



## Value-based Medicine: The Evolution and Beyond

In the modern world, most countries including Malaysia face tremendous challenges to achieve sustainability in the delivery of healthcare. Aging population, rapid innovation of new health technologies, escalation of healthcare cost, limited resources and economic instability are among the common factors affecting the sustainability issue.

Value-based medicine is defined as “the practice of medicine incorporating the highest level of evidence-based data with the patient-perceived value conferred by healthcare interventions for the resources expended”. In other words, it expands on evidence-based medicine by incorporating the cost utility analysis in order to provide healthcare that reflects patient’s values. The goals of value-based medicine are to improve quality of healthcare services, and ensure efficient allocation and utilisation of healthcare resources. The process in producing value for healthcare interventions involves many stakeholders including patients, researchers and general population. The evolution of value-based medicine is illustrated in Figure 1.

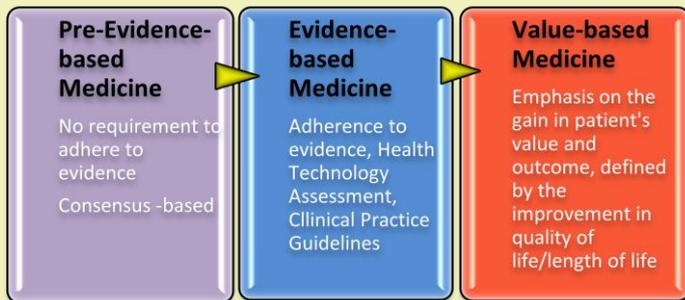


Figure 1: Evolution of evidence-based medicine to value-based medicine

There are three key components in the implementation of value-based medicine as illustrated in Figure 2. Firstly, the best retrievable evidence are identified and applied in the selection of new healthcare intervention. Next, a utility or a preference value from the selected population is measured and attached to the healthcare interventions. Finally, to facilitate the decision making, an economic evaluation is conducted using the selected data from these two components for use by the policy makers subsequently. This information may help to facilitate price negotiation process, development of health technologies reimbursement lists, and selection of drug listing in the national formulary and essential drug list.

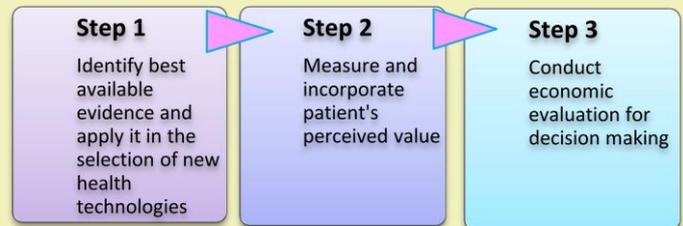


Figure 2: Key components of value-based medicine

In Malaysia, the implementation of value-based medicine in the Ministry of Health (MOH) has received full support from the discipline of oncology within the public sector in view of the escalating drug price for oncology treatment. To achieve the goal in its implementation, MaHTAS in collaboration with National Cancer Institute, Pharmaceutical Service Division and Malaysian Oncology Society has been actively involved in seminars and meetings with relevant stakeholders on strengthening the utilisation of value-based medicine in the delivery of healthcare services within the ministry since 2014.

A two-day 2<sup>nd</sup> Value-Based Seminar was successfully conducted on 16-17<sup>th</sup> May 2016 at the National Cancer Institute and officiated by the Director of Medical Development Division, MOH. The objectives of the seminar include to enhance the understanding of value-based medicine and to get the support and cooperation of all parties involved in the treatment of cancer on the principles of value-based medicine. It was attended well by relevant stakeholders namely clinicians, researchers, pharmacists and pharmaceutical industry representatives from both public and private sectors. Distinguished speakers were Dr. Paul Cornes, Consultant Clinical Oncologist from United Kingdom, and Prof. Dato’ Dr. Fuad Ismail, Consultant Oncologist from Hospital Canselor Tuanku Muhriz. It is hoped that with active engagement of stakeholders, the implementation of value-based medicine will be successful and helps to improve the healthcare in the country.

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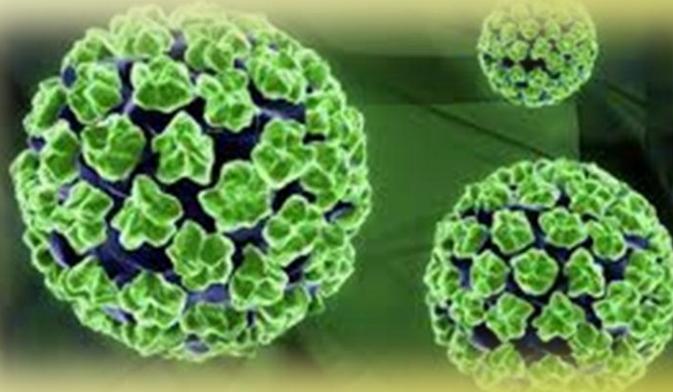
For decades, screening using conventional cytological Pap smear has been the most widely used strategy in reducing cervical cancer incidence around the world. Subsequently, the molecular methods to detect the Human Papilloma Virus (HPV) in infected tissues were introduced by liquid hybridization (Hybrid Capture 2) and/or polymerase chain reaction (PCR), using DNA from cervical scrapes/biopsies. Both screening strategies, however, require pelvic examination, a procedure that is invasive and uncomfortable for the patients, time consuming for healthcare providers and is unlikely to resolve the problem of poor screening uptake. The use of urine, which is easy to collect, is valuable for this purpose as exfoliated epithelial cells from the cervix and/or vagina is claimed to normally appear in the urine. Besides, urine would be an appropriate sample for screening large populations as it may increase their participation and compliance.

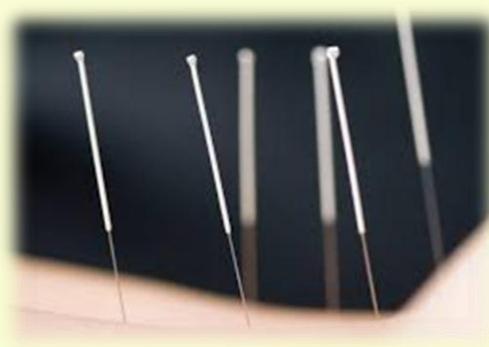
A Health Technology Assessment (HTA) conducted by MaHTAS to assess the effectiveness of HPV urine test for cervical cancer revealed that, in a combination population of symptomatic and asymptomatic women, detection of HPV DNA in urine has a good accuracy in detecting the presence of cervical HPV. In symptomatic population, the sensitivity and specificity was moderate (sensitivity 44.8% to 90.5%; specificity 34.8% to 85.0%) for detection of any HPV, high-risk HPV, and the most oncogenic strains, HPV type 16 and 18.

Detection rate of HPV DNA in urine among screened asymptomatic women varies depending on the chosen population and has been strongly associated with age (with a peak at around 25 years) and sexual activity. Human Papilloma Virus type 16 was identified most frequently in both urine and cervical samples. Studies among symptomatic patients had demonstrated a high degree of concordance rates with the same type of HPV in the paired cervical and urine samples, varying from 69.3% to 90.0% ( $\kappa$  from 0.41 to 0.80).

The detection of HPV DNA and hDNA in urine sample was significantly improved by a DNA conservation buffer (either in-house or commercial). Additionally, a significantly greater number of HPV DNA and hDNA copies were detected in the first void urine fraction compared with the midstream fraction. Urine collection method was highly acceptable and preferred compared to physician-collected cervical samples and brush self-collection among participating women. There was no retrievable evidence on cost-effectiveness and adverse events or complications associated with HPV urine test used for cervical cancer screening. There was also no evidence retrieved related to the effectiveness or benefits of cervical cancer screening using HPV urine test with regards to patient outcomes such as mortality rate, survival rate, QOL and QALY gained.

Based on this HTA, HPV urine test may have the potential as one of the screening method to be used in the cervical cancer screening. In view of the wide range of sensitivity and specificity in detecting HPV DNA in urine (symptomatic, and combination of symptomatic and asymptomatic population) and no diagnostic study retrieved among asymptomatic population, HPV urine test is not recommended to be used as one of the screening method in the cervical cancer screening programme in Malaysia until there is more evidence on its diagnostic accuracy.





**ACUPUNCTURE** [from Latin, 'acus' (needle) + 'punctura' (to puncture)] literally means to puncture with a needle. The technique involves placing hair-thin needles in various pressure points throughout the body. Stimulating these points is believed to promote the body's natural healing capabilities and enhance its function. It can be carried out together with the application of heat, pressure or laser light to the same points. As a therapeutic intervention, acupuncture is also increasingly practised in some Western countries.

Acupuncture is a type of traditional Chinese medicine which is based on knowledge inherited from generation to generation among the Chinese community. It is one of the many popular types of Traditional and Complementary Medicine practised in Malaysia. Acupuncture involves a technique of inserting and manipulating fine filament-like needles into specific points on the body (the acupuncture points) to relieve pain or for therapeutic purposes.

In Malaysia, the National Health and Morbidity Survey 2015 revealed that 2.13% of the population had used acupuncture. To date, MaHTAS have conducted three acupuncture-related systematic reviews.

## ACUPUNCTURE FOR POST-STROKE REHABILITATION

Acupuncture is being used in our community as a treatment for post-stroke rehabilitation. However, it remains uncertain whether the existing evidence is scientifically rigor for it to be recommended for routine use.

In a Technology Review (TR) by MaHTAS, trials on the effectiveness of acupuncture for post-stroke rehabilitation in most of the included systematic reviews were of varying quality. Nevertheless, findings from the systematic reviews showed that acupuncture seemed to be superior to conventional treatments or provide added value in terms of neurological function outcomes, motor recovery, activities of daily living, quality of life, and especially for post-stroke spasticity and shoulder-hand syndrome in hemiplegia patients. The treatment may be safe with minimal adverse events. There was no retrievable evidence on its cost-effectiveness.





## ACUPUNCTURE AS A COMPLEMENTARY THERAPY FOR MUSCULOSKELETAL PAIN



Musculoskeletal conditions are prevalent and their impact is pervasive. Musculoskeletal pain is defined as pain perceived within a region of the body and believed to arise from the muscles, ligaments, bones or joints in the affected region. The treatment of musculoskeletal pain is multimodal. Acupuncture for the treatment of this condition is growing in its acceptance, by both clinicians and consumers of healthcare.

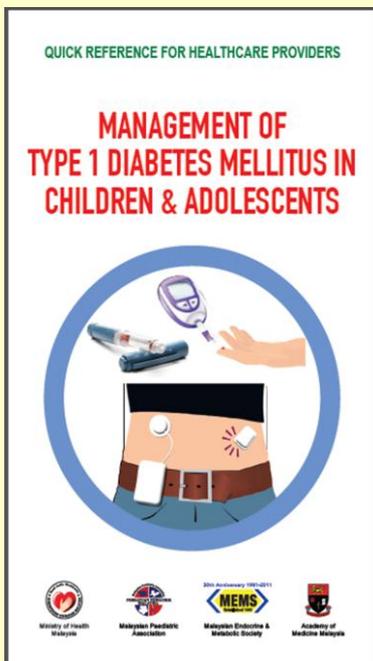
MaHTAS conducted a TR of 13 studies that showed good level of retrievable evidence on the effectiveness of acupuncture for patients with musculoskeletal pain such as neck pain, osteoarthritis, back pain, low back pain, fibromyalgia and ankle sprain. Evidence also showed that acupuncture was safe with no serious adverse events. Pain due to local insertion of the needle, ecchymosis and local paraesthesia were among some of the reported adverse events.

## ACUPUNCTURE FOR CHEMOTHERAPY-INDUCED NAUSEA AND VOMITING IN CANCER PATIENTS

Nausea and vomiting are common side effects of chemotherapy. Chemotherapy-induced nausea and vomiting (CINV) is categorised according to the time relative to chemotherapy administration during which the symptoms occur. There are four types of CINV which are anticipatory, acute, delayed and breakthrough. Anticipatory CINV occurs prior to the administration of chemotherapy. Acute CINV occurs within 24 hours and delayed CINV 24 hours or more after its administration. Breakthrough CINV is defined as vomiting, retching or nausea during any phase of the chemotherapy cycle despite antiemetic prophylaxis.

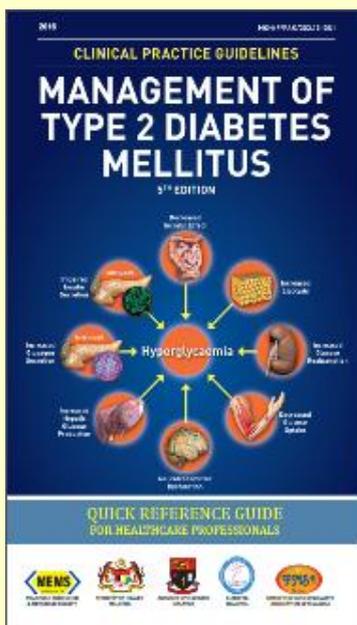
A TR by MaHTAS assessed three types of acupuncture which may relieve the emetic side effects of cancer chemotherapy. The types of acupuncture included in this review are acupuncture, acupressure (stimulation of acupuncture points using manual pressure instead of needles) and electro-acupuncture (an electric stimulation of the needle following insertion). The review suggested that acupuncture had positive effect on acute vomiting for CINV in cancer patients. There was also evidence that acupressure had beneficial effects on acute nausea as well as the severity of vomiting and nausea. Meanwhile, electro-acupuncture was shown to reduce the episodes of emesis but not on acute vomiting.





1. Type 1 diabetes mellitus (T1DM) children & adolescents classically present with polyuria, polydipsia & weight loss over 2 - 6 weeks.
2. Patients with diabetic ketoacidosis (DKA) should be managed in hospitals with specialists experienced in the management of the condition.
3. Patients with severe DKA & at risk of cerebral oedema should ideally be monitored in an intensive care unit. Risk of cerebral oedema can be reduced by:
  - not giving large volumes of fluid after initial volume expansion
  - not administering insulin in the first hour of fluid treatment
  - not using bicarbonate to correct acidosis
4. Intensive insulin therapy is the preferred regimen in patients with T1DM.
  - Basal insulin constitutes about 40 - 60% of the total daily insulin dose (TDD); the remainder is pre-prandial rapid-acting/short-acting insulin.
  - Those using night-time intermediate-acting insulin, the basal insulin constitutes between 30% (if on short-acting insulin) & 50% (if on rapid-acting insulin) of TDD; the remainder is pre-prandial rapid-acting/short-acting insulin.
5. The goal of hypoglycaemia treatment is to restore blood glucose to normal level (5.6 mmol/L). Severe hypoglycaemia warrants urgent treatment.
  - In hospital, this can be treated by intravenous (IV) dextrose 10% (2 - 4 ml/kg).
  - If there is no IV access, subcutaneous/intramuscular glucagon can be given (0.5 mg for patients <12 years old & 1.0 mg for those >12 years old).
6. Carbohydrate counting should be a part of T1DM management.
7. Ideally, diabetes team should consist of paediatrician, diabetes educator, dietitian, pharmacist, psychiatrist/clinical psychologist/counsellor & medical social officer.
8. Physical activities should be performed regularly & in a safe manner in T1DM.
9. Self-monitoring of blood glucose should be performed 4 to 6 times a day & more frequent in certain conditions such as sick day or during exercise.
10. Screening of thyroid function & measurement of antithyroid peroxidase antibody should be done at diagnosis of T1DM.

### CPG Management of Type 2 Diabetes Mellitus (5<sup>TH</sup> Edition)



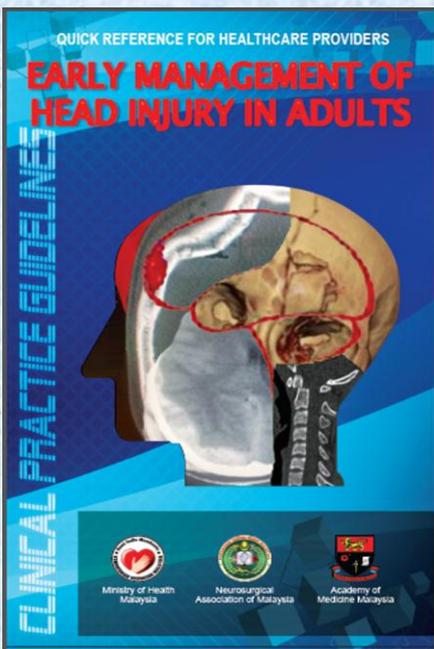
1. Individuals with risk factors for diabetes should be screened annually as more than half of adults with the disease are unaware of their diagnosis.
2. An A1c $\geq$ 6.3% performed using NGSP-certified method & standardised to DCCT assay is diagnostic of diabetes mellitus in Malaysian adults.
3. Patients with pre-diabetes (impaired fasting glucose & glucose tolerance) are 2 to 3 times at risk of developing cardiovascular diseases (CVD) & diabetes.
4. Framingham Risk Score should be calculated for patients with pre-diabetes & diabetes to determine the risk of developing CVD.
5. A1c, blood pressure & cholesterol should be monitored 3 - 6 monthly with annual funduscopy, feet examination, urine dipstick, and renal & liver function tests.
6. An A1c $\leq$ 6.5% is recommended to reduce complications. However, it should be individualised to minimise the risk of hypoglycaemia.
7. Serious attention must be given to patient's glycaemic control as only a quarter of patients in primary care clinics & one-eighth in tertiary care hospitals are able to control their diabetes.
8. Patients who upon diagnosis control their diabetes will continue to benefit from the reduced risk of CVD even if their controls deteriorate later in life (Metabolic Memory).
9. Newer anti-diabetic agents & insulins have not been shown to be more effective than older ones. However, they can cause less hypoglycaemia & weight gain.
10. Universal screening should be performed on all pregnant women between week 24 to 28 using Modified Oral Glucose Tolerance Test whenever feasible. Those with risk factors should be screened at booking & repeated 4 - 6 weeks later if normal.
11. Muslims with diabetes can fast safely in Ramadhan provided they exercise caution & make appropriate adjustments to their therapy in consultation with their healthcare providers.
12. In those at risk of developing diabetes, the use of metformin can be considered after 6 months of failed lifestyle intervention.

## CPG Early Management of Head Injury in Adults

Head injury is one of the commonest & probably the most preventable medical conditions. Road traffic accident is the commonest cause of head injury globally, besides accident at home, workplace & during sports event. This neglected global epidemic has been the concern of the World Health Organization (WHO) since 1960s. According to WHO Road Safety 2015 Report, the global rate of road traffic deaths was 17.4 per 100,000 populations, while the Malaysian estimate rate was 24 per 100,000 populations. This rate is considerably high for Malaysia despite having well equipped with efficient emergency access & care for road traffic victims.

In Malaysia Health Information Management System (HIMS) 2014 Report, trauma contributed to 11.65% from a total of attendances to emergency department at MOH hospitals. Injury was the second highest principle cause of new attendances at specialist clinic visits & third highest principle reason for emergency department visits at MOH hospitals. Apart from that, 80.3% of emergency neurosurgeries involved head injuries & 8.7% deaths from a total of admissions to neurosurgical wards were due to head injuries.

The introduction of evidence-based guidelines in the early management of head injury in adults is timely. It covers various aspects of early management of the condition such as initial assessment, triaging, imaging, general management, use of certain medications such as anticoagulant or antiplatelet, discharge advice & follow-up. Systematic referral system which includes utilisation of teleconsultation & protocols for safe transfer of patients outlined in the guidelines is important to optimise the limited number of hospitals with neurosurgical subspecialty services. This will help to establish the missing links in the efforts to provide a safe & effective early management of head injury. There are also many algorithms & appendices to provide better understanding of the management. The utilisation of the CPG by all healthcare providers may also help to reduce current clinical practice variations & provide optimum care for all patients with head injury.



### Key Messages

1. Majority of patients with major trauma have injury to the head & neck. Many lives can be saved with good pre-hospital care & quick transportation to the hospital.
2. Glasgow Coma Scale & Glasgow Coma Scale Score should be used in the assessment of all patients with head injury by trained healthcare providers.
3. Hypotension, hypoxia, hypocarbia & hypercarbia should be avoided in patients with head injury to prevent secondary brain injury.
4. Cervical collar should be applied in head injury patients with suspected cervical injury.
5. Isotonic crystalloid is the preferred choice of IV fluid resuscitation in head injury.
6. Patients with head injury should be monitored using head chart & any deterioration should prompt immediate re-evaluation by the attending doctor.
7. Canadian Computed Tomography Head Rule may be used to decide on the need of Computed Tomography (CT) of the head in mild head injury (MHI).
8. Patients with MHI with no indication for CT scan can be safely observed in emergency department for a minimum of 6 hours.
9. Teleconsultation should be used in the management of head injury if available.
10. Verbal & written discharge advice should be comprehensible & include instructions to recognise alarming features & phone contact number of local healthcare facilities.

**Economic Evaluation in Healthcare Course -  
Intermediate and Advanced Level  
National Cancer Institute Putrajaya, 7-9 March 2016**



In order to build our capacity in conducting economic evaluation, MaHTAS invited Associate Professor Dr. Asrul Akmal Shafie, a lecturer from School of Pharmaceutical Sciences, Universiti Sains Malaysia, to conduct an intermediate and advanced level course on economic evaluation. The content of the course included basic principles and concepts of cost analysis, allocation of shared resources, shadow price, accounting for time difference and utility elicitation. Participants were actively involved in the hands-on sessions on critical appraisal and interpretation of economic evaluation papers, and the statistical analysis of patient level data. The stages in the development of decision analytic modeling were also taught, followed by a practical session.

**Health Technology Assessment Training for East Coast Zone  
5-7 April 2016**



A HTA training was conducted in Kuala Terengganu from 5 to 7 April 2016. It was participated by a total of 36 participants from various agencies and hospitals. The aim of the training was to give exposure on the concept of HTA which is an important input for policy/ decision-making at various levels. This training also aimed to increase the understanding of participants about the process of producing HTA reports.

Speakers from MaHTAS presented the framework and work process of HTA activity. Techniques for article search were introduced. Study designs and their quality assessment were also presented. During the course, participants were divided into smaller groups for discussion and hands-on activities.

## 5th HTAsiaLink Annual Conference 3-6 May 2016, Singapore

MaHTAS Activities  
[International]



The 5<sup>th</sup> HTAsiaLink Annual Conference 2016 was held at Duke-National University of Singapore (NUS), Medical School, Singapore. The event was co-organised by the Singapore Ministry of Health, Health Services Research Department of the Eastern Health Alliance and SingHealth Duke-NUS Health Services Research Institute. It served as a platform to convene similar HTA agencies in the region to facilitate exchange of knowledge and provided opportunities for the staffs of member organisations to present their work to a panel of experts in the HTA field. The theme of the conference was “*The Role of Health Technology Assessment in Ensuring Value for Public Investment*”. A total of nine officers from MaHTAS attended the conference. Dr. Junainah Sabirin was one of the panelists in a forum entitled “*How Much Difference Do Institutional Make for HTA*”. A total of eight presentations from MaHTAS were also delivered during the conference. Heartiest congratulations to Dr. Roza Sarimin for winning the third best presentation with a title “*Water Birth: How Safe and Effective?*”.

## MS Roundtable Meeting 2016 Singapore, Malaysia and Thailand



Dr. Mohd. Aminuddin was invited by Multiple Sclerosis (MS) Society of Thailand to give talks on Clinical Practice Guidelines (CPG) in the annual MS Roundtable Meeting held in Renaissance Bangkok Ratchaprasong (Marriott) Hotel on 25 June 2016. One of the objectives was to discuss and provide coherent advice for the Thailand MS CPG Development. A total of three talks (“CPG Development - the Do’s and Don’ts”, “CPG Implementation - Is it necessary?” and “CPG Adaptation - Its feasibility”) were delivered. The talks were eye-openers to the guideline developers of the CPG on MS on what to be expected in CPG development and implementation.

## 13th HTAi Annual Meeting and INAHTA Conference

Health Technology Assessment International (HTAi) is the global scientific and professional society for all those who produce, use or encounter HTA, with members from over 65 countries. The Annual Meeting of HTAi 2016 was held from 10 to 14 May 2016 in Tokyo, Japan. The theme chosen for this year was “*Informing Health Care Decisions with Values and Evidence*”. Subsequent to this, another annual event i.e. International Network of Agencies for Health Technology Assessment (INAHTA) Congress, took place at the same venue with a theme of “*Sharing Innovative Solutions for Health Policy Challenges*”.

Dr. Junainah Sabirin represented MaHTAS in these two events. She took part in the pre-conference meeting entitled “*Managing Emerging Health Technologies: An Introduction to Early Awareness and Alert Systems*” during which she presented on “*Horizon Scanning of Health Technologies in Malaysia*”. The following five HTA/ TR by MaHTAS were presented during the conference:

- I. Bronchial Thermoplasty (oral presentation) by Dr. Junainah Sabirin
- II. From HTA To Service Provision: example; Continuous Intrathecal Baclofen (ITB) Infusion for Severe Spasticity and Dystonia (poster presentation) by Dr. Junainah Sabirin
- III. Omitting Routine Chest Radiograph (X-Ray) in Routine Medical Examination (RME) in Malaysia: A Potential Cost Saving (poster presentation) by Dr. Junainah Sabirin
- IV. Spiritual Therapy for Mental Disorders (poster presentation) by Mdm Noormah Mohd Darus
- V. Breast Cancer Risk Prediction Model for Identifying Those at Risk: The Malaysian Context (poster presentation) by Dr. Roza Sarimin

In the INAHTA Congress, Dr. Junainah shared the impact of HTA report with other agencies during a forum entitled “*Innovative Solutions to Health Policy Challenges in Asia*”. She also represented MaHTAS in the INAHTA Business Meeting.



## HTA and CPG Council Meeting 1/2016

The HTA and CPG Council Meeting 1/2016 was held on 20 June 2016 and chaired by Datuk Dr. Jeyaindran Tan Sri Sinnadurai, the Deputy Director General of Health, Malaysia. Four CPGs, one HTA report, thirteen mini-HTA (TR) reports and five Horizon Scanning TechBrief reports were presented during the meeting.



**Table 1: HTA presented in HTA and CPG Council 1/2016**

- HPV Urine Test for Cervical Cancer Screening

**Table 2: CPGs presented in HTA and CPG Council 1/2016**

- Prevention of Heart Disease in Women (2<sup>nd</sup> edition)
- Management of Heart Disease in Pregnancy (2<sup>nd</sup> edition)
- Management of Rhinosinusitis in Adolescents and Adults
- Management of the Palatally Ectopic Canine (2<sup>nd</sup> edition)

**Table 3: Mini-HTA reports presented in HTA and CPG Council 1/2016**

### Otorhinolaryngology

- Bipolar Radiofrequency-induced Thermotherapy for Management of Snoring, Hyperplasia Nasal Concha, Tonsillar Hypertrophy, Tonsillitis, and Obstructive Apnea
- Automated Auditory Brainstem Response (AABR) and Otoacoustic Emission (OAE) Devices in Universal Newborn Hearing Screening
- Nasometer for Diagnosing Nasality in Cleft Palate Patients
- Balloon Eustachian Tuboplasty for Treatment of Eustachian Tube Dysfunction

### Ophthalmology

- Umbilical Cord Serum Eye Drops for Severe Ocular Surface Disease
- Hand-held Fundus Camera
- Femtosecond Laser-assisted Cataract Surgery

### Oncology

- Cryoablation for Cancer Treatment
- Radiofrequency Ablation for Cancer Treatment

### Surgery

- Hybrid Mattress for Prevention and Treatment for Pressure Ulcer

### Endocrinology

- Insulin Pump Therapy for Type 1 and Type 2 Diabetes

### Orthopaedics

- Chiropractic Therapy for Musculoskeletal Pain

### Medical

- Molecular Line Probe Assay in the Detection of Antibiotic Resistance in Leprosy Patients

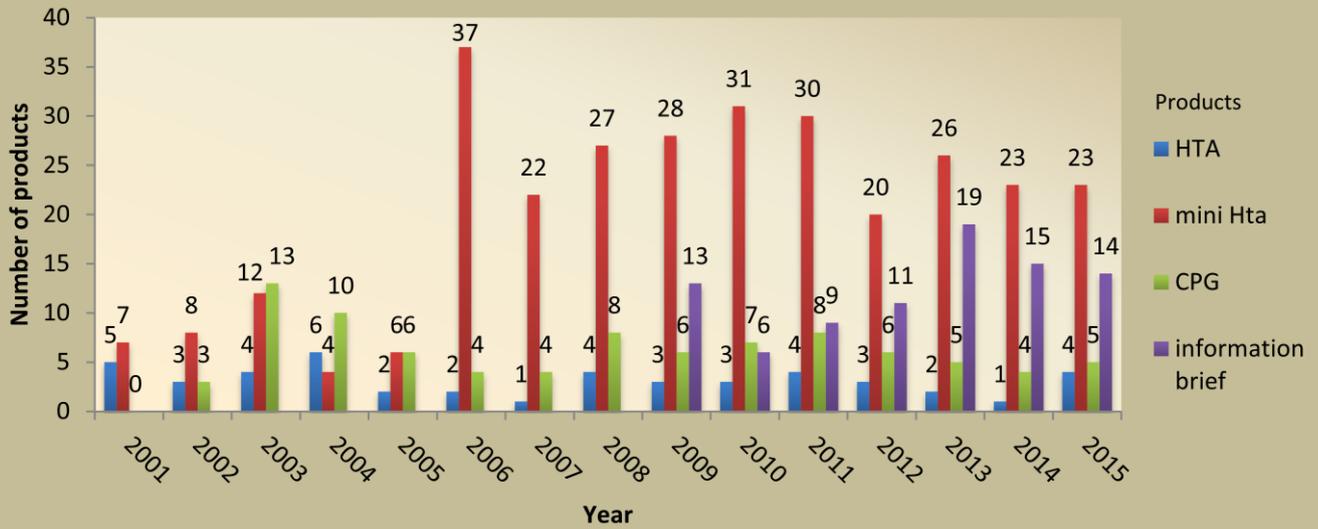
**Table 4: Horizon Scanning TechBrief reports presented in HTA and CPG Council 1/2016**

- Angel Hook
- Smart Table
- Supertraction Pulley
- Risk of Ovarian Cancer Algorithm (ROCA) Using Serial CA 125
- MRI-GUIDED Laser Interstitial Thermal Therapy (LITT) for Brain Tumour

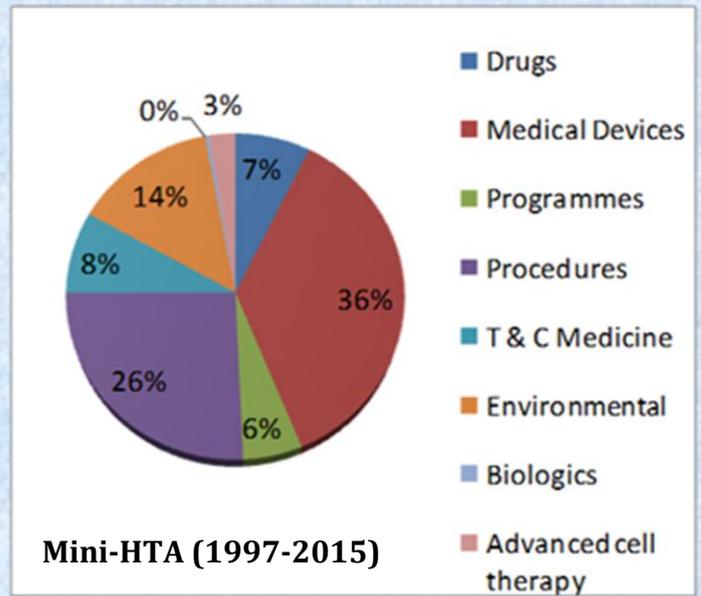
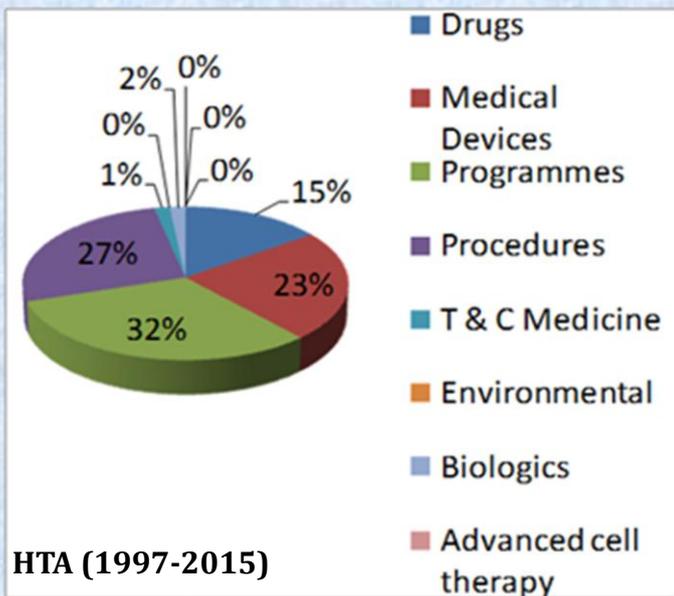


# MaHTAS PUBLICATIONS

Number of HTA, mini HTA, CPG and information brief produced by MaHTAS (2001-2015)



## HTA and mini-HTA by types of health technologies (1997-2015)

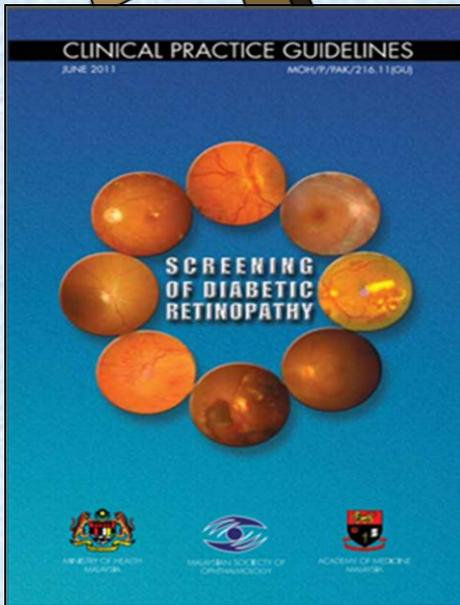


### Publication in peer-reviewed journal

A CPG publication entitled Management of Neonatal Jaundice in Primary Care has been accepted to be published in Malaysian Family Physician Journal 2016.



## Adherence to CPG Screening of Diabetic Retinopathy

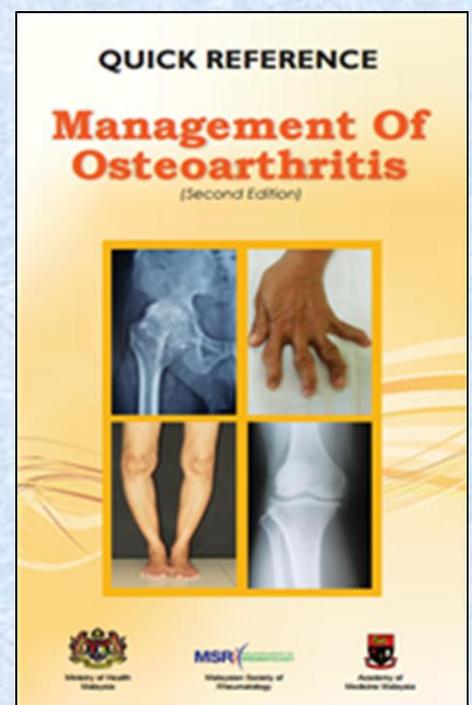


A CPG on Screening for Diabetic Retinopathy was developed in 2011 by MOH. It highlighted the important role of primary healthcare providers in annual diabetic eye examination using a funduscope or fundus camera. A cross-sectional study on adherence to this CPG was conducted in 2014, which to the best of our knowledge was the first study measuring adherence to CPG in Malaysia. This study aimed to determine the prevalence of adherence to this CPG among medical officers and paramedics involved in Diabetes Care, and to compare the adherence of CPG among healthcare providers in different types of healthcare facilities. Multistage sampling stratified by states and healthcare facilities was applied for study population. A total of 305 health clinics (93 health clinics with Family Medicine Specialists (FMS) and 212 clinics without FMS) and eight hospitals without specialists were selected for the study. A pre-tested self-administered questionnaire via postal survey was used to assess respondent's demography, adherence, screening method and referral process. 'Adherence' is defined as self-reported application of the CPG in the respondent's practice.

Response rate of 67.4% was demonstrated involving 1092 respondents. This study found 90.3% of respondents were aware of the CPG existence (95% CI 88.5 to 92.0). The high proportion of awareness was consistent with the proportion of adherence i.e. 94.6% (95% CI 93.1 to 96.0). Majority of respondents (75.5%) screened diabetic retinopathy using fundus camera in their practice, as recommended by the CPG. Less than half of all respondents received any training related to this CPG. The CPG contents may need to be revised in future as 15.0% of respondents still found it was difficult to understand despite much effort had been put forward to produce user-friendly and easily understood CPG. This study was limited by the self-reported response on adherence to the CPG. Nevertheless, the strength of this study was large study population involvement which could give a glimpse of the extent to which the CPG recommendations were being taken up in actual clinical practice.

## Quick Reference (QR) Utilisation Survey 1/2016

Monitoring and evaluation of CPG implementation activities has been started in year 2011 and continued biannually since then. The monitoring is done using postal survey of self-administered questionnaire (QR Utilisation Feedback Form) to targeted respondents from randomly selected MOH healthcare facilities in Malaysia. In the first monitoring survey of 2016, CPG Management of Osteoarthritis (2<sup>nd</sup> edition) was chosen. A total of 285 respondents from 41 selected healthcare facilities (Medical and Orthopedic Departments in hospitals with specialist; hospitals without specialist and health clinics) participated in the survey (81.4% response rate). An acceptable proportion of awareness and utilisation of the QR (70.5%) among the respondents in their practice was noted. This QR was reported useful as a reference material, a tool to assist in decision making as well as a guide in further understanding of the disease.



# RESEARCH ACTIVITIES

## MaHTAS User Feedback 1/2016

MaHTAS User Feedback is an on-going survey which is carried out to objectively measure the utilisation of the HTA/TR reports. Completed reports will be disseminated to requestors, relevant services/discipline/divisions in MOH for TR, and additional reports recipient in MOH healthcare facilities for HTA according to the topic.

The analysis of feedback was done biannually. For 1/2016, data from 33 TR reports produced in 2014 demonstrated overall proportion of utilisation at 90.2%. The quality of these TR reports was rated as excellent (16.7%) and good (81.2%) by the respondents respectively.

## Evaluation of Impact/Influence of Health Technology Assessment/ Technology Review Reports

The main purpose of HTA is to inform technology-related policy-making in healthcare. In ensuring the reports produced serve their purpose, MaHTAS commenced biannual monitoring postal survey on HTA/TR impact. The survey was conducted among the requestors of HTA/TR reports approved in HTA and CPG Council Meeting approximately one year prior. It used pre-tested "Evaluation of Impact/Influence of HTA/TR reports, MOH" form which was adapted from the International Network of HTA Agency (INAHTA) HTA impact framework. For the 1/2016 session, 11 HTA/TR topics were involved (2 HTA and 9 TR). Data was analysed descriptively according to the type of HTA/TR recommendation (recommended, recommended for research and not recommended). From the six reports which were recommended, in terms of indication of impact, 83.3% respondents agreed with the recommendation. Whereas for level of impact, 50.0% of respondents reported the HTA/TR reports gave impact in informed decision, 33.3% reported the HTA/TR had major influence on decision and 16.6% reported some consideration of HTA/TR given by decision-makers. For the other five reports which were recommended for research, in terms of indication of impact, 100.0% of respondents agreed with the recommendation. Whereas for level of impact, 60.0% of respondents reported the HTA/TR reports gave major influence in decision-making and 40.0% reported some consideration of HTA/TR given by decision-makers.

## THE HORIZON SCANNING PILOT PROJECT

Horizon Scanning, also known as the Early Awareness and Alert System, is a systematic activity aimed at identifying new and emerging technologies that may have relevant impact on the population's health or on the healthcare system.

In Malaysia, under the MaHTAS, the Horizon Scanning Pilot Project was carried out through a period of one year starting from May 2015 until May 2016. It was aimed at evaluating the feasibility, usefulness, flow and timeline of the methods and the forms developed for the Horizon Scanning steps namely the identification, filtration, prioritisation and assessment processes. A total of 34 new technologies were identified; 19 proactively and 15 reactively.

Based on this project, challenges identified in conducting the Horizon Scanning activity include wide range of perspective, understanding and expectations from the stakeholders/ participants, and balancing between the scarcity of evidence and promoting innovations, especially local innovations.

In conclusion, this project gave an idea of the whole actual process of the Horizon Scanning and also marked the start of an established Horizon Scanning activity under the MOH.

## EDITORIAL BOARD

### Advisor:

**Dr Junainak Sabirin**

### Contributors:

**Dr Jzzuna Mudla Mohamed Ghazali**

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*Malaysian Health Technology Assessment Section  
(MaHTAS)*

*Medical Development Division  
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62590 Putrajaya*

## COURSES AND WORKSHOPS CONDUCTED FROM JANUARY TILL JUNE 2016

Economic Evaluation in Healthcare Course (Intermediate and Advanced Level), National Institute of Cancer : 7 to 9 March 2016

Health Technology Assessment Course for East Coast Region, Grand Continental Hotel, Kuala Terengganu : 5 to 7 April 2016

## COURSES AND WORKSHOPS PLANNED FROM JULY TILL DECEMBER 2016

Intermediate and Advanced Applied Bio-Statistics for Medical Research Workshop : 25 to 27 July 2016

Systematic Review on Evidence-Based CPG Development & Implementation Course 1/2016 : 19 to 21 September 2016

Health Technology Assessment Course for Expert Committee Members/ Central Region – tentatively in October 2016



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## TURNOVER OF MAHTAS STAFF

*We are pleased to introduce...*



**Pn Siti Mariam Mohtar**

Pharmacist UF41  
Joined on 11.01.16



**En Kamarul Azhar  
Kamaruddin**

Pharmacist UF48  
Joined on 18.01.16



**Dr Suthagar Gopalan**

Medical Officer UD52  
Joined on 07.03.16



**Pn Zamilah Mat Jusoh**

Nurse U32  
Joined on 14.03.16



**En Mohd Arman  
Ahmad Asli**

Admin Assistant N17  
Joined on 04.04.16



**Pn Balqis Abdul  
Ghani**

Pharmacist UF44  
Joined on 04.04.16

*We thank you for your contribution...*



**En Badrul Hisham  
Awang**

Medical Assistant U32  
Left on 28.03.16



**Dr Noor Aishah  
Yusof**

Medical Officer UD48  
Left on 18.04.16



**Pn Khairina Arshad**

Admin Assistant N17  
Left on 18.04.16



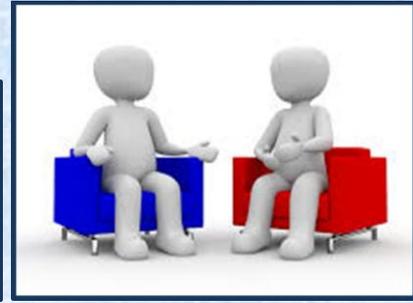
**Pn Loong Ah Moi**

Nurse U36  
Left on 20.04.16



**Pn Khor Sok Fang**

Research Officer Q41  
Left on 31.05.16



*Interested to join us in MaHTAS?  
We're looking for staff with these criteria...*

### PERSONAL CHARACTERISTICS

- Responsible & accountable
- Passionate with work (especially in reading & writing)
- Willing to learn
- Diligent
- Uphold integrity
- Good team player (teamwork)
- Punctual; able to work within deadlines
- Patient
- Good communication skills

### TECHNICAL CHARACTERISTICS

- Preferably with Masters (MPH/ DrPH/ Health Economics/ Epidemiology/ Biostatistics/ HTA/ EBM/ Health Policy)
- Have knowledge & skills in these areas:
  - EBM
  - Retrieval of evidence
  - Research design/ methodology
  - Medical statistics
  - Appraisal/quality assessment of studies
  - Decision analytic modelling
  - Interpreting & communicating evidence
  - Medical writing for various purposes
- IT savvy



# OBITUARY

*IN LOVING MEMORY OF*



***Dr. Suthagar a/l Gopalan***

***02/10/1979 – 02/10/2016***

*In the final process of editing this newsletter, we were saddened by the sudden demise of our dear colleague, Dr. Suthagar a/l Gopalan, on 2<sup>nd</sup> October 2016. Although he just joined us in March 2016, owing to his exuberant and amiable character, Dr. Suthagar readily became a significant part of us.*

*He had been a loving and respectful son and brother, a cherished friend to all of us, and a dedicated doctor to his patients. Let us all remember him with great memories he brought and shared with us. May God bless his soul. May he rest in peace.*

***“To live in the hearts we leave behind is not to die...”***