NEWSLETTER
MaHTAS
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News

Launching of myMaHTAS Mobile Application

In line with technology advancement and in improving access to MaHTAS products, namely Health Technology Assessment (HTA) reports, Technology Review (TR) reports, Clinical Practice Guidelines (CPG) and the upcoming Horizon Scanning reports, a mobile application named as myMaHTAS was developed in collaboration with the Malaysian Administrative Modernisation and Management Planning Unit (MAMPU) and Information Management Division, Ministry of Health. myMaHTAS Mobile App was officially launched by YB. Datuk Seri Dr. S. Subramaniam, Minister of Health Malaysia, on 10 July 2014 during monthly assembly. The app is user-friendly and can be downloaded on Android and iOS devices.

Launching of myMaHTAS by YB. Datuk Seri Dr. S. Subramaniam, Minister of Health Malaysia

Proudly present the myMaHTAS Mobile App to all MOH staffs

How to download myMaHTAS on your Android or iOS devices

On smart phone or tablet

	Android Platform	iOS Platform	Website myGovMobile
Click		or	or

Search: myMaHTAS

Click MaHTAS → Click INSTALL

On top of myMaHTAS Mobile App, MaHTAS has also taken the initiatives to improve communication with the public and stakeholders through social media namely Facebook, Twitter and mySMS 15888.

Launching of CPG on Management of Osteoarthritis (Second Edition)

Launching ceremony of CPG on Management of Osteoarthritis

The CPG on Management of Osteoarthritis (Second Edition) was recently approved by MOH. To create awareness of its existence and hence utilisation, the CPG was officially launched by YBhg. Datuk Dr. Jeyaindran Tan Sri Sinnadurai, representing the Director General of Health, at Hospital Selayang on 28 May 2014. The ceremony was made possible by collaboration between MaHTAS, Hospital Selayang and Malaysian Society of Rheumatology. A pre-launching Continuous Medical Education on Osteoarthritis and a press conference were also organised that day.

Needle Syringe

Conventional needle become primary method for delivery of drugs especially macromolecular drugs such as insulin and vaccine. According to the World Health Organization (WHO), two million injuries from needle sticks and other sharp objects occur to 35 million healthcare workers in the world each year (WHO Aide Memoire 2003). A safer needle device is a sharp with a protective feature that blunts, retracts, sheaths or shields the sharp after use so that it is no longer sharp and therefore cannot cause an injury to the health care worker, cleaner, or the community. The following are the four Technology Reviews assessed by MaHTAS regarding needle syringe with their safety features.

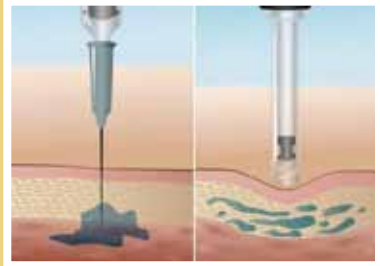
1 Syrijet Mark-II: Needless Injector

Syrijet Mark-II: Needless Injector is a self-contained instrument that consists of 3 major components which are (1) the handle, (2) the cartridge well and (3) a conical injector head. It use a principle of a jet of compressed air to aerosolize and inject fluids from replaceable cartridges. The needleless injector delivers medication by providing a strong, high pressure blast of the medication through a small orifice. This will cause a minute stream of the medication to exit the orifice at the high rate of speed to allow the medication to penetrate into the skin and subcutaneous tissues. The invention of the orifice structure also provides a more even distribution and higher velocity jet which dispenses the selected volume in a shorter time period. Based on the studies, the efficacy and safety of Syrijet Mark II in dentistry is inconclusive.

Syrijet Mark-II: Needless Injector

2 INJEX (Needle Free Drug Delivery System)

INJEX is needleless or jet injection where the medication/ vaccine is injected under the skin without a needle, using the force of the liquid under pressure to pierce skin. The device becomes the primary alternative to needle for delivery of macromolecules. INJEX is widely used to deliver drugs or medication such as insulin, vaccine, anesthesia and low molecular weight heparin (LMWH). There was limited fair to good level of evidence retrieved to show that needle free drug delivery system was effective to deliver drugs or medications. There were also adverse events reported while using such device. Besides that, cost-effectiveness study retrieved was only on the use of needle-less jet-injection system with Lidocaine for peripheral intravenous (IV) cannula insertion which incurred more cost compared)to the use of conventional method (needle-syringe method). More clinical research is warranted.


Needle syringe Injection | INJEX System

3 Retractable Needle Syringe

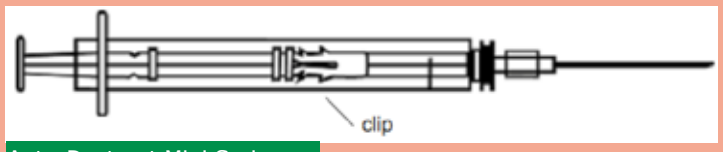
A syringe with a retractable needle worked similar to a self re-sheathing needle. The needle (usually fused to the syringe) is spring-loaded and retracts into the barrel of the syringe when the plunger is completely depressed after the injection is given. The advantage is that the needle fully retracts into the body of the syringe, thus saving space for disposal and eliminating parts. After the needle is fully depressed and all fluids is injected into the patient, a spring or gas cell enacts the needle and retracts it fully into the body of the barrel where it is locked in place.

The only variation in the design is whether or not a spring or a gas cell is used. Both perform the same task. After injection, the user can fully retract the plunger back into the barrel, reducing the possibility of exposed needles to the user. Final compaction of destroyed needles not only improves the safety but also reduces the cost and disposal space of used syringes. However, there were fair evidence to support the safety and effectiveness of using retractable needle syringe. The evidence for cost saving when using the retractable needle must be viewed as pertinent when comparing the cost incurred in managing a healthcare worker who contracted a needle stick injury and suffered it consequences.

Complete Needle Retraction

4 Auto-Destruct Mini Syringe

SoloShot (SS) is a plastic disposable syringe that has been equipped with a syringe LOCK metal clip inserted into the syringe barrel at the time of manufacturer. After permitting a single filling and emptying, the metal clip is designed to lock the plunger and prevent it from being drawn back a second time. The metal clip is set to permit filling up to 0.575 ml of vaccine with a head space to allow removal of air bubbles and adjustment for the exact dose. The clip is the exact dose. The clip is never contact with the vaccine liquid. SoloShot has a breakaway notch in the plunger to inhibit twist out and a barrier rib on the plunger to guard the clip against intention defeat. A 23 gauge and 25 mm needle is permanently attached.



Auto-Destruct Mini Syringe

Limited good level of evidence showed that auto-destruct mini syringe improved vaccination coverage and reduce vaccine wastage. Theoretically, it may reduce needle stick injury and blood-borne infection which may occur through contaminated re-used needle. However, there was insufficient evidence on the safety. The cost of auto-destruct syringes is more expensive than sterilized syringes, which may increase the national immunisation budget but may save the cost of vaccine wastage. However, proper training on the usage and safety measures of the syringe is required especially among the experience vaccinators.

Pneumococcal Conjugate Vaccine for Children Below 5 Years Old

Pneumococcal conjugate vaccines (PCVs) containing polysaccharide antigens connected to carrier proteins have been found to be effective in developing an immune response and in reducing nasopharyngeal carriage of vaccine-type pneumococci in infants and children. *Streptococcus pneumonia* is the most common cause of acute otitis media (AOM) and invasive bacterial diseases in children, including bacteraemia, meningitis, and pneumonia. With integration of 7-valent pneumococcal conjugate vaccine (PCV7) into the routine childhood immunisation schedule, incidence of invasive pneumococcal disease (IPD) in US children declined dramatically. Nevertheless, *S pneumonia* remains a major cause of morbidity and mortality in children worldwide, particularly in countries in which non-vaccine serotypes such as 1, 3, 5, 6A, and 19A are common. Currently in Malaysia there is no policy on the use of pneumococcal conjugate vaccines to protect against invasive pneumococcal disease, such as meningitis, and acute otitis media among infants and children. Therefore this HTA is conducted to review the evidences on the efficacy, safety, effectiveness, cost effectiveness and organisational aspects of PCV10 & PCV13 before introducing them into the National Childhood Immunisation programme. Therefore, a systematic review was conducted to review the evidences on the efficacy, safety, cost effectiveness and organisational aspects of pneumococcal conjugate vaccine before it can be recommended into the National Childhood Immunisation programme for children below 5 years old. Thirty-six studies were included in this review.

Based on the above review, it is recommended that regular surveillance is conducted since changes in serotypes may occur naturally with time and serotypes replacement by nonvaccine serotypes in response to vaccine pressure. The surveillance data is required to determine the usefulness of available pneumococcal vaccines and the need for new vaccine. It is also recommended that local economic evaluation and research should be conducted considering our healthcare systems as well as local costing that will further provide more evidence to support the above strategies.

Choosing between the PCV10 and PCV13 vaccines will depend on the preference of the decision maker / policy maker either to prevent the severe IPD cases only, or prevention of AOM. PCV13 was predicted to provide a higher impact on severe invasive pneumococcal diseases (IPD) and community acquired pneumonia (CAP), while PCV10 was expected to provide a substantially greater reduction in acute otitis media (AOM). PCV13 may be the choice to prevent death due to pneumococcal diseases in order to achieve Millenium Development Goal 4 (MDG4). Cost of PCV10 and PCV13 are expensive and our low less than 5 mortality need also to be considered before embarking on the national pneumococcal conjugate vaccination programme. Affordability and sustainability is also an important issue for any national programme. Hence, taking into account our Malaysian scenario, PCV13 should be given for high risk group first before considering giving it for all children below 5 years old.

International Participation

2nd NECA Annual Conference

Dr Junainah Sabirin attended the 2014 2nd NECA Annual Conference with a theme of "EBM and HTA in Korea: Striving for a Brighter Future", which is marking the 5th year of the National Evidence-based Healthcare Collaborating Agency (NECA), held on 26-28 March 2014, in Seoul, Korea. Also participated in the Preconference Workshop on Early Awareness and Alert System, presented a paper on HTA in Malaysia and attended the HTAsiaLink Board Meeting.

Participants of 2nd Annual NECA Conference which comprised of members of HTAsiaLink, EuroScan, NICE, HealthPact and CADTH

HTA Asia Policy Forum 2014

HTA Asia Policy Forum 2014 was held in Manila on 10-11 July 2014. HTA Asia Policy Forum is a venue for senior peoples from HTA Organizations, industries, policy makers to meet and discuss on important issues related to HTA. This year, the theme of the forum was on transferability of HTA. HTA has been identified as a decision support tool for universal health coverage. Factors that may affect transferability of HTA were discussed in the forum. Participants came from various countries such as Australia, United Kingdom, Canada, Taiwan, Korea, Japan, Singapore, Thailand, Malaysia, Indonesia, Philippines and also representatives from industries. YBhg. Datin Dr. Rugayah Bakri and Madam Noormah Darus attended the forum.

Asia-Pacific Regional Capacity Building for HTA (ARCH) Initiative

MaHTAS participated in the Asia-Pacific Regional Capacity Building for HTA (ARCH) Initiative which is an international consortium led by the National University of Singapore, NICE International, Health Interventions and Technology Assessment Programme (HITAP), Thailand and the Department of Health- HTA Taskforce, Philippines. The theme for the ARCH initiative is HTA and tobacco control. The ARCH initiative is an APEC Health Working Group funded project.

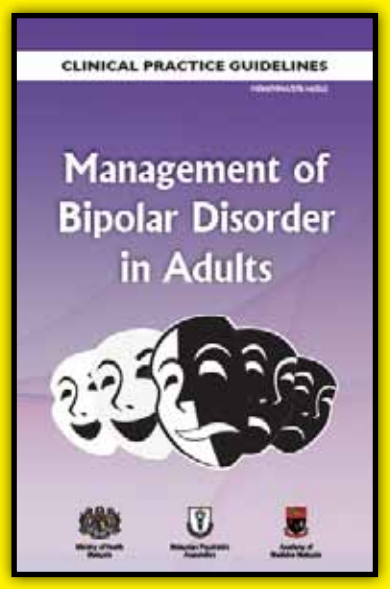
The ARCH inaugural workshop was held in Manila from 10-11 April 2014. Participants from ten APEC economies joined this days workshop aimed at strengthening the understanding of key HTA concepts, and also importantly, identifying opportunities for 'hands-on' HTA in participating countries. Dr Izzuna Mudla and Dr. Roza Sarimin represented MaHTAS in the workshop.

Dr Izzuna in the Panel Discussion on HTA and Tobacco Control Policy in Asia

Dr Roza presenting on current HTA and Tobacco Control activities in Malaysia

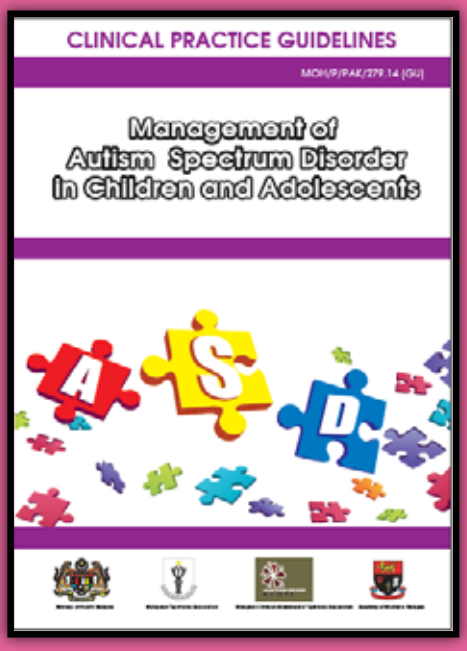
Datin Dr Rugayah and Mdm Noormah with Prof Sir Michael Rawlins from NICE UK, Dr Laura Sampietra-Colom from Spain and Dr Melissa Guerero from Philipines

Management of Bipolar Disorder in Adults



1. Management of people with bipolar disorder (BD) should be collaborated between service providers at different levels of healthcare as well as care givers.
2. In depressed people with risk factors, clinicians should consider the possible diagnosis of BD.
3. Lithium monotherapy should be used as first line treatment in BD and monitored regularly at least every 6 months.
4. For acute bipolar mania, mood stabiliser or antipsychotics, either as monotherapy or combination, should be used.
5. Antidepressants may be used as short term adjunctive treatment in acute bipolar depression.
6. Lithium should be considered as the treatment of choice to prevent suicide in BD.
7. Psychosocial interventions should be incorporated into patients' care in addition to pharmacological treatment in BD.
8. All people with BD should be assessed for substance misuse.

Management of Autism Spectrum Disorder in Children and Adolescents



1. Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder characterised by impairments in communication, behaviour & social functioning which begin in childhood.
2. Early diagnosis & prompt intervention of children with ASD is crucial for the best outcome.
3. Modified Checklist for Autism in Toddlers (M-CHAT) may be used as a screening tool for ASD among children at 18 months and repeat at 24 months if the child passes the earlier M-CHAT.
   - It may be used to screen children up until the age of 30 months if the child misses the earlier screening.
   - Regardless of the screening result, children suspected of ASD at any age by the family or other care providers should be referred for evaluation.
4. Diagnosis of ASD should be made clinically, based on comprehensive history & observation.
5. Audiological assessment should be performed in children with or suspected ASD.
6. Children with ASD should be managed by a multidisciplinary team.
7. Parents or carers should actively participate in any intervention offered to children with ASD.
8. Children with ASD should receive:
   - Applied behaviour analysis
   - Speech, language & communication interventions
   - Occupational therapy
9. Parental training should be offered to parents of children with ASD.
10. Traditional & Complementary Medicine could not be recommended to children with ASD because of insufficient evidence & potential harmful effects.

Workshop on Adaptation of Evidence-Based Clinical Practice Guidelines (CPG)

Dr Jako delivering lecture

Developing high-quality CPGs require substantial resources. Guidelines developers are pressured to produce more CPGs in a shorter period but increasingly limited resources. CPG adaptation is seen as an alternative to de novo CPG development as it may reduce duplication of effort and shorten the timeline to produce the document. Guideline adaptation is the systematic approach to considering the endorsement or modification of guidelines produced in one setting for application and implementation in another. This takes into account on cultural and organisational differences between and within countries which can lead to legitimate variations in the recommendations even when the evidence used is the same.

Group discussion

A workshop on Adaptation of Evidence-based Clinical Practice Guidelines was organised by MaHTAS in collaboration with World Health Organization (WHO) on 28 - 30 April 2014 at the Headquarters, Ministry of Health. A total of 37 participants consisting of clinicians, other healthcare providers and MaHTAS staffs attended it. Dr. Jako Burgers, Family Physician and Head of Department of Guidelines Development & Research, Dutch College of General Practitioners, Utrecht, Netherlands was invited to be the speaker/facilitator of the training.

The objectives of the workshop were to understand the CPG adaptation work process, to gain basic skills on it and to incorporate it in local CPG work process. Based on ADAPTE process, participants were taught and guided on the three main phases of adaptation (Set-up, Adaptation and Finalisation Phases). They were actively involved in all interactive sessions including small group exercises. A manual on CPG adaptation was also produced after the training which can be used by local CPG developers. It was designed to be flexible in its application with emphasis on the importance of transparent and explicit reporting of the adaptation process.

Training of Core Trainers (TOT) on CPG Management of Psoriasis Vulgaris

As part of CPG implementation, a TOT on CPG Management of Psoriasis Vulgaris was held successfully at Premiere Hotel, Klang on 11 - 12 June 2014. A total of 57 participants nationwide consisting of dermatologists, general physicians and family medicine specialist attended the training. A wide range of topics addressed in the CPG were delivered by the CPG Development Group themselves. Related issues were discussed thoroughly with the lecturers/ facilitators for better understanding of psoriasis management.

Group Discussion

Systematic Review (SR) on Evidence-Based CPG Development & Implementation 1/2014

The first SR training on CPG development and implementation was held on 7 - 9 April 2014 at Block E1, Ministry of Health (MOH), Putrajaya. It was specially conducted for members of the new CPG on Management of Rhinosinusitis. The Development Group is made up of clinicians and other medical personnel from both MOH and Ministry of Education, and chaired by YBhg. Dato' Dr Narizan Ariffin, from Hospital Kuala Lumpur. The training consisted of lectures, group exercises and hands-on.

Lecture given by MaHTAS officer.

Health Technology Assessment as a Tool for Universal Health Coverage

A major challenge for health systems and for achieving universal health coverage is the pursuit of equity, quality of care and efficiency. Universal health coverage means that all people are able to access and use the health services they need (including prevention, promotion, treatment, rehabilitation and palliation), that these services are of sufficient quality to be effective, and that the use of these services does not expose the user to financial hardship. The drive to achieve such coverage and ensure provision of affordable services to all populations heightens the need to choose interventions judiciously and manage effectively technologies that are to be adopted within countries' health systems.

Health Technology Assessment (HTA) is the systematic evaluation of properties, effects or other impacts of health care interventions. The main purpose of HTA is to inform decision making in health care, including decisions made at the individual or patient level, the level of the health care provider or institution, or the regional, national as well as international levels. HTA may address the direct and intended impacts or consequences of interventions as well as their indirect and unintended ones.

Acknowledging the critical role of independent health intervention and technology assessment, as multidisciplinary policy research, in generating evidence to inform prioritisation, selection, introduction, distribution, and management of interventions for health promotion, disease prevention, diagnosis and treatment, and rehabilitation and palliation; the 67th World Health Assembly held in Geneva in May 2014 approved a resolution entitled "Health intervention and technology assessment in support of universal health coverage". Malaysia was one of the co-sponsors of the resolution. The resolution marked another milestone in HTA and urges the member states:

1 to encourage the systematic utilisation of independent health intervention and technology assessment in support of universal health coverage to inform policy decisions, including priority-setting, selection, procurement supply system management and use of health interventions and/or technologies, as well as the formulation of sustainable financing benefit packages, medicines, benefits management including pharmaceutical formularies, clinical practice guidelines and protocols for public health programmes;

2 to consider in addition to the use of established and widely agreed methods, developing as appropriate national methodological and process guidelines and monitoring systems for health intervention and technology assessment in order to ensure the transparency, quality, and policy relevance of related assessments and research;

3 to further consolidate and promote health intervention and technology assessment within national frameworks, such as those for health system research, health professional education, health system strengthening and universal health coverage;

4 to consider strengthening national capacity for regional and international networking, developing national know-how, avoiding duplication of efforts and achieving better use of resources;

The secretariat (WHO) has to assess the status of health intervention and technology assessment in Member States, raise awareness, provide technical support to Member States, support the exchange of information among other paragraphs, and to report the progress of the implementation in 2016.

HTA played an important role in Malaysian health care system since the establishment of HTA Unit which is currently known as Malaysian Health Technology Assessment Section (MaHTAS) in August 1995. MaHTAS conduct health technology assessment on the broad categories of new health technologies and provide the evidence as an input for policy making related to health technologies particularly in terms of purchasing or adopting new technologies. Since its establishment until December 2013, 58 in-depth assessments (HTAs), and 260 Technology Reviews (TRs) have been carried out. It is hope that HTA will be used more widely in Malaysia in achieving universal health coverage.

Source : World Health Organisation and MaHTAS

Monitoring and Evaluation of CPG

All health care providers are encouraged to use the evidence based CPGs in their management of patient.

The development of Quick Reference (QR) guide, Training Module (TM) and Patient Information Leaflet (PIL) based on the CPGs that have been developed, and the conduct of Training of Core Trainers at national level were amongst implementation tools and activities carried out to enhance CPG utilisation by the target users.

Monitoring and evaluation of CPG implementation activities nationwide was started in 2011 in ensuring recommendations in the CPGs are being practiced.

CPG uptake by the target users is measured indirectly by utilisation of the QR. Biannual survey are conducted to selected healthcare providers in MOH healthcare facilities by using self-administered 'Quick Reference Utilisation Survey Form'. Each survey measures different CPG topic and the percentages of QR utilisation are illustrated in Figure 1.

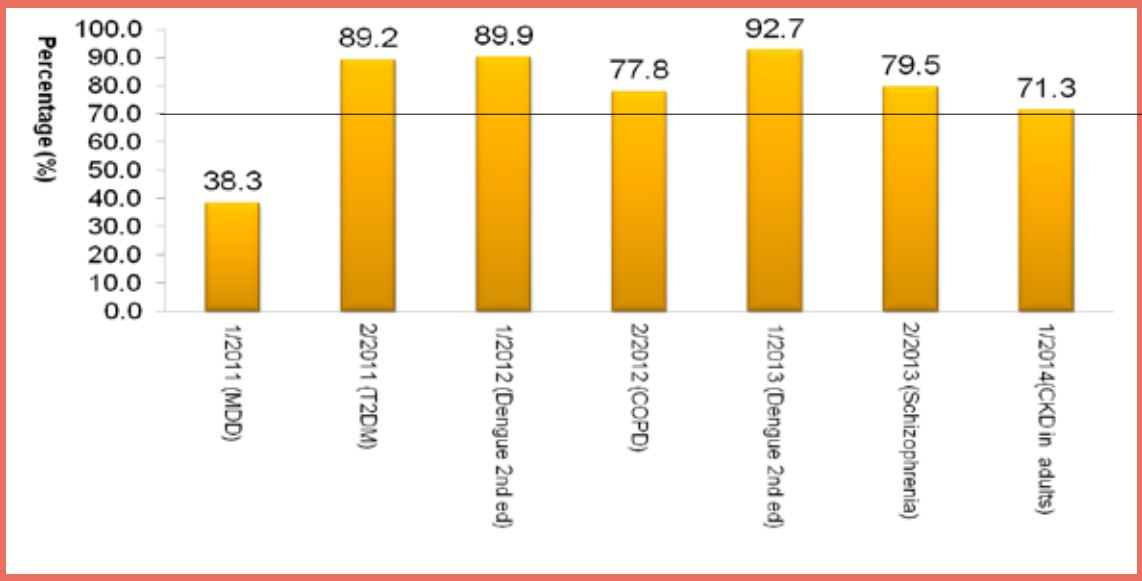


Figure 1 : Distribution of QR utilization percentage by topic (2011-2014)

Study on adherence to proposed CPG clinical audit indicator is another method of evaluating CPG uptake. Clinical audit indicators are developed using key recommendations in the CPG. These are recommendations that are likely to have the biggest impact on patient care and its outcome. Currently, adherence studies are being conducted on CPG Screening of Retinopathy, and CPG Management of Dengue Infection in Adults.

Finally, echo trainings conducted based on CPG TM at state, hospitals or health clinics level are monitored annually. The aim is to ensure active dissemination of information from the CPG delivered directly to the target users. Number of trainees for all echo trainings since 2011 are shown in Figure 2.

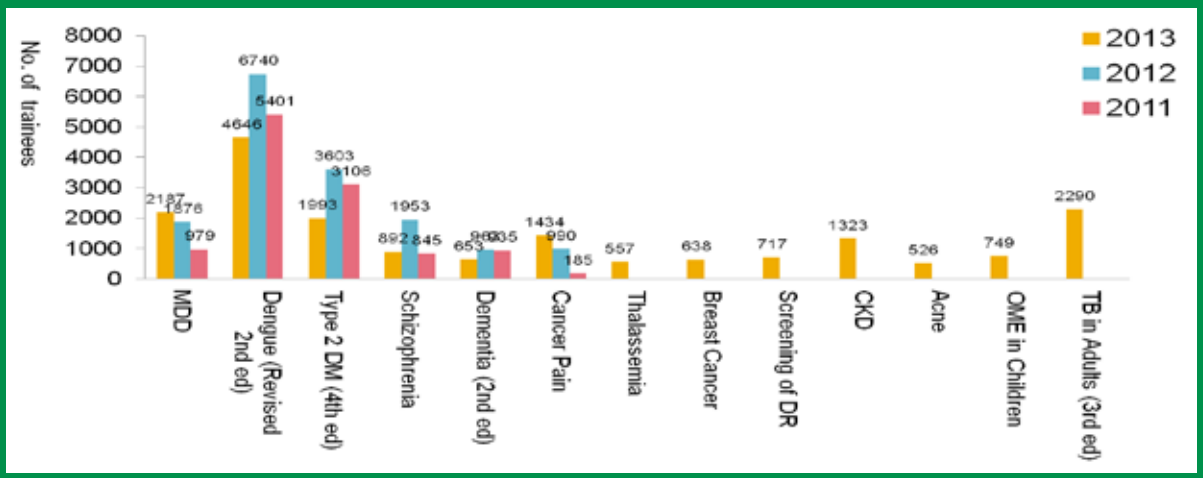


Figure 2 : Number of trainees participated in echo-training by topic (2011-2013)

Courses and Workshops Conducted from January until June 2014

Courses/workshops	Date
1. Systematic Review on Evidence-based CPG Development and Implementation 1/2014	07-09 April 2014
2. Workshop on Adaptation of Evidence-based Clinical Practice Guidelines	28-30 April 2014
3. Training of Core Trainers on CPG Management of Psoriasis Vulgaris	11-12 June 2014

Courses and Workshops Planned from July until December 2014

Courses/workshops	Date
1. Health Technology Assessment Course for East Malaysia (Sabah)	20-22 August 2014
2. Economic Evaluation Workshop	08-09 October 2014
3. Horizon Scanning Workshop 2014 : Manual development	13-15 October 2014
4. Systematic Review on Evidence-based CPG Development and Implementation 2/2014	3-6 November 2014
5. Training of Core Trainers on CPG Management of Osteoarthritis (Second Edition)	9-10 November 2014

Turnover of MaHTAS Staffs

We Are Pleased to Introduce

Dr. Khadijah Abdul Rahim
Medical Officer UD48
Joined MaHTAS on
4 February 2014

Dr. Nur Farhana Mohamad
Medical Officer UD44
Joined MaHTAS on
24 February 2014

Dr. Syaqirah Akmal
Medical Officer UD52
Joined MaHTAS on
3 March 2014

Dr. Syaharatul Patimah Kamarudin
Medical Officer UD44
Joined MaHTAS on
15 April 2014

Thank You for Your Contribution

1 **Mr. Zawawi Umar**
Medical Assistant U32
Left MaHTAS on
2 Januari 2014

2 **Mr. Syful Azlie Md Fuzi**
Science Officer C48
Left MaHTAS on
7 Februari 2014

3 **Mr. Mohd Fadhlurahman Kamaruddin**
Medical Assistant U32
Left MaHTAS on
1 April 2014

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