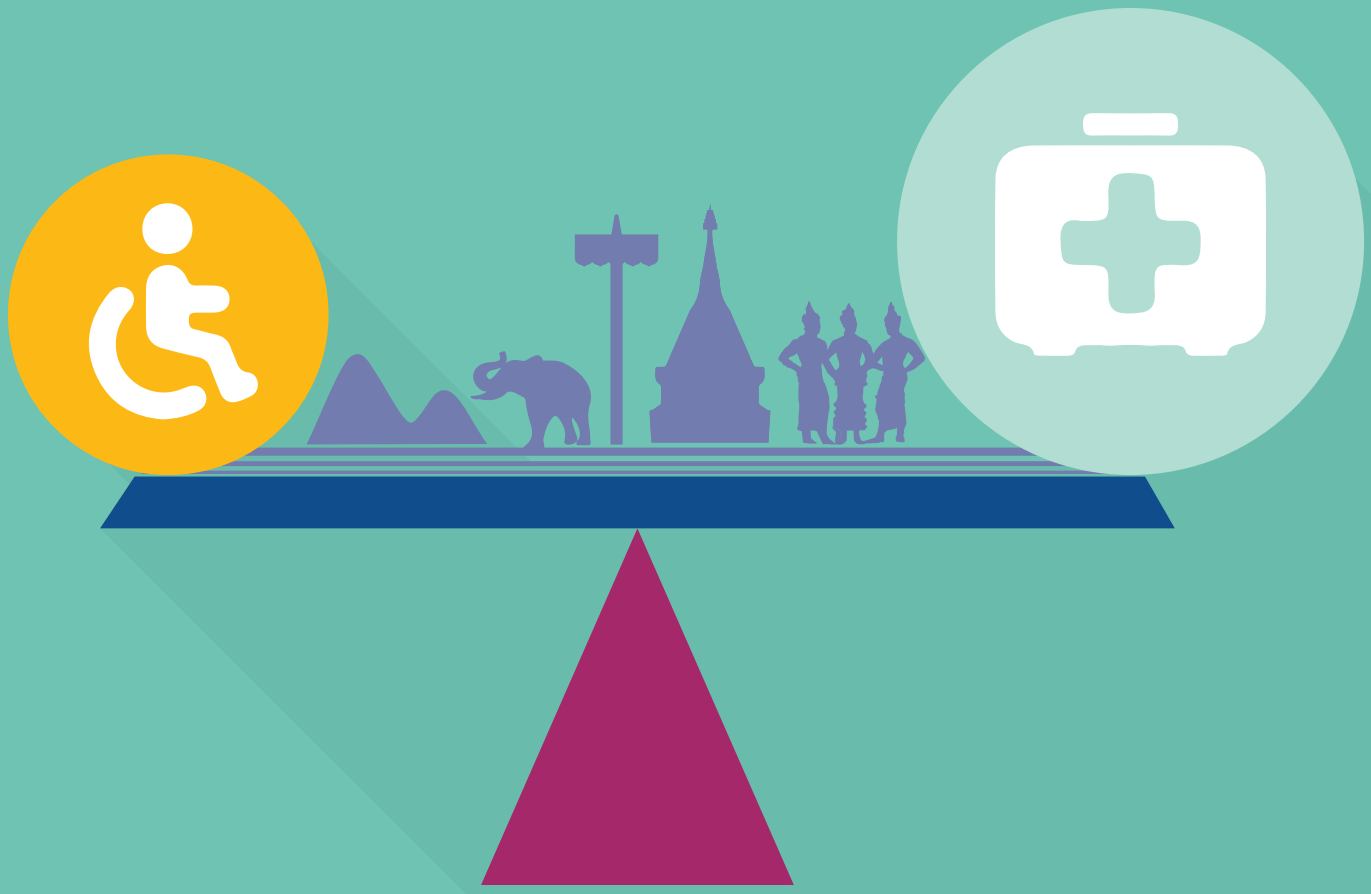
8 - 11 MAY 2018

LE MÉRIDIEN CHIANG MAI, THAILAND

HTA SIALINK 2018



TESTING TREATMENTS

STRENGTHENING HTA FOR BETTER HEALTHCARE

HTASIALINK 2018

CONTENT

ABOUT HTASIALINK

The HTAsiaLink network was established in 2010 to strengthen collaboration between Health Technology Assessment (HTA) agencies in Asia and Pacific region. One of our unique activities is the annual conference that aims to be a capacity building platform for young researchers. Global HTA experts are invited to join and provide constructive comments to junior members' research presentations in an open discussion environment. Since its establishment in 2010, the network now consists of 39 agencies 4 individual members from 19 countries. The HTAsialink annual conference is organized in to facilitate exchange HTA knowledge and experience among member agencies and to identify development plan of the network in the next year. The conference also provides opportunity to young researchers in member agencies to present their study and obtain comments from international experts and peers. For more information about HTAsiaLink, please visit http://www.htasialink.org

THE 7TH HTASIALINK

It is a delight and honour for HITAP & Mahidol to be a host for this conference in Thailand after 7 years. The 7th HTAsiaLink, co-organised by the Health Intervention and Technology Assessment Program (HITAP) and Mahidol University in Chaing Mai province from 8-11 May, with an approximate number of 250 participants from all over the world. The theme of this year is "Testing Treatments: Strengthening HTA for better healthcare". 'Testing Treatments' is considered a part of HTA and focuses on clinical aspects of health technologies and interventions. It contributes to better, more systematic and evidence-based healthcare and requires less personal judgement, which could be misleading and cause harm to patients and the public. This year, more than 60 abstracts under the streams of health economic evaluation and health system research from member organisation will be orally presenting their work to a panel of expert commentators where in-depth feedback will be provided. We would like to extend heartfelt gratitude to our funders The Thailand Research Fund (TRF), National Health Security Office (NHSO), Thai Health Promotion Foundation, Government Pharmaceutical Organization (GPO) and International Decision Support Initiative (iDSI) of this conference and to the participants for the overwhelming response we have received.

Welcome Messages

Although several HTA collaborations at the global and regional levels existed prior to HTAsiaLink, it is the only HTA network initiated by actors within the region. Its unique history and character makes the network a worthwhile story to be shared. One of the network's primary activities is an Annual HTAsialink Conference that started in 2012 in Thailand. In the following years the annual conferences continued, and were hosted by different volunteer local organizers in Malaysia, China, Taiwan, Singapore and Vietnam. The conference focuses on the development of HTA capacity and networking amongst junior staff of HTAsiaLink organizational members and has neither any membership nor conference fee for all participants. To allow for open discussion of issues regarded as sensitive to public HTA agencies, the conference does not allow participants from the healthcare products industry to join. Local organizers of conferences also commit their own resources or mobilize additional funding support to organize the conference. Members pay for their own travel and accommodation. Organizations such as International Decision Support Initiative (iDSI), HTAi, INAHTA, Rockefeller Foundation, and WHO also provide funding support.

As HTAsiaLink enters its eighth year, the 2018 network conference in Chiang Mai, Thailand, is expected to be the largest in terms of participants and sessions. I would like to take this opportunity to thank all individuals, organizations and networks that have provided instrumental support to HTAsiaLink since its establishment in 2010. I wish that the HTAsiaLink can maintain and accelerate its significant impact in HTA development in Asia and beyond for years to come.

Thanks and best regards,

Yot Teerawattananon, MD, PHD

President of HTAsiaLink

Welcome to the 2018 HTAsiaLink Annual Conference!

I am Young Sung Lee, the President of National Evidence-based Healthcare Collaborating Agency or NECA. I sincerely welcome you all to the 7th HTAsiaLink Annual Conference in Chiang Mai, Thailand. At this year's conference, it is expected that all the members of HTAsiaLink gather here to discuss how health technology assessment (HTA) can contribute to utilizing safe and effective treatments for better healthcare. A number of experts in the field of HTA will attend and have in-depth discussions under the theme of 'Testing treatments: strengthening HTA for better healthcare'. We have made every endeavor and accomplishment underpinned by cooperation among global agencies, beyond the Asia-Pacific region, to effectively utilize HTA for Universal Health Coverage (UHC). However, we are also confronted with various limitations in utilizing the existing evidence to achieve UHC in the face of the reality that we must quickly adapt to the rapidly changing healthcare environment and technology development. There have been ongoing concerns regarding the limited available evidence for the optimal use of health technologies and the challenges in generating new evidence.

I hope the 7th HTAsiaLink Annual Conference in Chiang Mai to be an opportunity to discuss the practical role of HTA, the challenges facing the health systems in the Asia-Pacific region such as limited data sources and the introduction of new HTA methodologies, and cooperation system between members to overcome this. On behalf of the HTAsiaLink members, I would like to extend my sincere appreciation to HITAP, the Mahidol University and the Ministry of Public Health in Thailand for their effort to prepare this year's event, and I wish for the successful hosting of the 7th HTAsiaLink Annual conference. As the secretariat of HTAsiaLink and the organizing committee for next year's annual conference, NECA will also make every efforts to the continuous advancement of the HTAsiaLink and strengthening network among members.

Sincerely Yours,

Young Sung Lee, MD, Ph.D

President, National Evidence-based Healthcare Collaborating Agency (NECA)

8TH MAY 2018

Pre-conference morning session

Time	Activity		
8:30-9:00	Registration		
	Session I	**Session II**	**Session III**
9:00-10:30	**Topic:** The assessment of pharmaceutical treatments for cancer **Speaker:** Prof. John Cairns	**Topic:** Political Economy of HTA to support UHC **Moderator:** Dr. Jasmine Pwu **Speakers:** Dr. Somsak Chunharas, Dr. Daphne Khoo, and Prof. Jeonghoon Ahn	**Topic:** Using service delivery platforms to strengthen health systems: an extension of cost-effectiveness analysis and case study **Speakers:** Prof. Peter C. Smith, Katharina Hauck, and Ranjeeta Thomas, Lumbwe Chola, and Anthony Kinghorn
10:30-11:00	Coffee break		
	Session IV	**Session V**	**Session VI**
11:00-12:30	**Topic:** Evidence to inform policy making on vaccine introduction: experiences from China and opportunities across Asia **Speakers:** Moderator: Waranya Rattanavipapong Speakers: Prof. Mark Jit, Dr. Yot Teerawattananon and Dr. Soewarta Kosen	**Topic:** Introducing HTA for Alternative & Traditional Medicines (ATM) **Speakers:** Prof. Olivia Wu, Dr. Pakakrong Kwankhao, and Dr. Junainah Sabirin	**Topic:** Publishing – understanding the editorial process and authors responsibilities **Speakers:** Assoc. Prof. Wendy Babidge and Dr. Asrul Akmal Shafie
12:30-13:15	Lunch		

Main conference afternoon session I

Time	Activity
13:15-13:45	Registration
13:45-14:45	**Welcome remarks** Prof. Vicharn Panich, Chairman of the HITAP Board
	Opening speech Dr.Opart Karnkawinpong, Deputy Permanent Secretary of the Thai Ministry of Public Health
	Shigeki Miyake Senior representative from Japan International Cooperation Agency Thailand Office
	Representative from HTAsiaLink Board
	Dr. Young Sung Lee President of National Evidence-based Healthcare Collaborating Agency (NECA), South Korea
14:45-15:00	Group photo
15:00-15:30	Coffee break
15:30-16:30	**Plenary I: Experience of using unsafe or ineffective health interventions and technologies** **Moderator:** Dr. Daphne Khoo, Ministry of Health, Singapore **Speakers:** 1. Prof. Dr. Pisake Lumbiganon, Thai Cochrane Network, Thailand 2. Dr. Yaolong Chen, Lanzhou University, China 3. Dr. Karen Hofman, PRICELESS, Wits School of Public Health, South Africa
16:30-17:30	A special session “The principles of horizon scanning or Early Awareness and Alert systems (EAAs)” by EuroScan

9TH MAY 2018

Main - conference morning session

Time	Activity		
8:30-9:00	Registration		
9:00-10:30	**Plenary II: Current efforts and challenges in assessing unproven practices** **Moderator:** Damian Walker, Bill and Melinda Gates Foundation, USA **Speakers:** 1. Dr. Rintaro Mori, Department of Health Policy, National Center for Child Health and Development, Tokyo 2. Dr. Seok-Hyun Kim, National Evidence-based Healthcare Collaborating Agency (NECA), South Korea 3. Dr. Kalipso Chalkidou, Center for Global Development, USA and Imperial College London, UK		
10:30-11:00	Coffee break A special session "The promotional event for the Testing Treatments book"		
	Convention Hall 1	**Convention Hall 2**	**Convention Hall 3**
11:00-11:20	**Moderator:** Prof. Jeonghoon Ahn **Commentators:** Prof. Anthony Culyer and Prof. Marc Suhrcke	**Moderator:** Mr. Kwong Hoe Ng **Commentators:** Prof. John Cairns, Dr. Damian Walker and Dr. Mohamed Gad	**Moderator:** Assoc. Prof. Wendy Babidge **Commentators:** Assoc. Prof. Dr. Cherdchai Nopmaneejumruslers and Prof. Brendon Kearney
	EE 01 Sustained Virological Response and Safety of Direct-Acting Antivirals for Hepatitis C Genotype 5 and 6: A Systematic Review and Meta-analysis	**EE 02** Enhancing accessibility of treatment for metastatic renal cell carcinoma in Malaysia (withdrawn)	**HSR 01** In-Effective Technologies: Health Technology Assessment (HTA) in Malaysia
11:20-11:40	**EE 03** Moving Towards HTA Institutionalisation in the Philippines: A Pilot Assessment on Sitagliptin for Type 2 Diabetes Patients with Chronic Kidney Disease	**EE 04** Economic Evaluation of Cetuximab for patients with Metastatic Colorectal Cancer (mCRC)	**HSR 02** Expert Survey for mid and long-term planning of National Health Clinical Research
11:40-12:00	**EE 05** Assessing Clinical Outcomes and Price of Analogue Insulins Compared with Human Insulins for Type 2 Diabetes: Meta-analysis and Price Survey	**EE 06** Cost-utility analysis of bortezomib, thalidomide and lenalidomide for relapsed/refractory multiple myeloma treatment	**HSR 03** Pilot study of establishing a horizon scanning system in China
12:00-13:00	Lunch		
	Convention Hall 1	**Convention Hall 2**	**Convention Hall 3**
13:00-13:20	**Moderator:** Asst.Prof. Dr. Montarat Thavorncharoensap **Commentators:** Assoc.Prof.Arthorn Riewpaiboon and Dr. Lumbwe Chola	**Moderator:** Dr. Anthony Kinghorn **Commentators:** Dr. Katharina Hauck and Prof. Olivia Wu	**Moderator:** Dr. Jomkwan Yothasamut **Commentators:** Prof. Kalipso Chalkidou, Assoc. Prof. Nithat Sirichotiratana and Dr. Mohamed Gad
	EE 07 Post-stroke Rehabilitation Cost with Traditional Therapy: An Evidence from Public Hospital in Vietnam	**EE 08** Towards the introduction of pneumococcal conjugate vaccines in Bhutan: A cost-utility analysis to determine the optimal policy option	**HSR 04** A systematic review of evaluation studies of complex interventions in health care
13:20-13:40	**EE 09** Survival rate and Costs in Primary Hepatocellular Carcinoma with Cirrhosis	**EE 10** Cost-effectiveness of 13-Valent Pneumococcal Conjugate Vaccine in the treatment of Invasive Pneumococcal Disease among Children Under 5 in China	**HSR 05** Introduction of Value-based Assessment Frameworks in new health technology approval system in Korea
13:40-14:00	**EE 11** Cost analysis of stigmatization and discrimination reduction package in health care settings	**EE 12** Cost-Effectiveness of Dengue Vaccine introduction in Dhaka City, Bangladesh	**HSR 06** Development of Value-Based Pricing in Singapore
14:00-14:20	**EE 13** Predicting the cost neutral price for vaccines in Lower Middle-Income Countries: A case study of cost neutral pricing of dengue vaccine in Sri Lanka	**EE 14** The Willingness to Pay (WTP) for a Hypothetical Dengue Vaccine in Penang, Malaysia	**HSR 07** Health Technology Assessment of Medical Devices in Taiwan: Lessons from Cochlear Implants
14:20-14:40	**EE 15** An economic evaluation of tocilizumab use in the treatment of systemic juvenile idiopathic arthritis	**EE 16** The cost-effectiveness analysis of rotavirus vaccine in low- and low-middle income countries: A systematic review and meta-analysis	**HSR 08** Impact/influence of Health Technology Assessment (HTA) reports in Malaysia: Result of a mixed-method evaluation
14:40-15:10	Coffee break		

9TH MAY 2018

Main - conference afternoon session

Time	Activity		
	Convention Hall 1	**Convention Hall 2**	**Convention Hall 3**
15:10-15:30	**Moderator:** Dr. Jasmine Pwu **Commentators:** Prof. Jeonghoon Ahn and Dr.Asrul Akmal Shafie	**Moderator:** Dr.Varalak Srinonprasert **Commentators:** TBC, Dr.Wanrudee Isaranuwatchai and Dr. Mohamed Gad	**Moderator:** Dr. Roongnapa Khampang **Commentators:** Dr. Somsak Chunharas and Asst.Prof.Dr.Thunyarat Anothaisintawee
	EE 17 Cost-utility analysis of pemetrexed plus platinum-base for malignant pleural mesothelioma treatment	**EE 18** Cost-effectiveness analysis of mass media campaign of alcohol consumption control (No Alcohol during Buddhist Lent) in Thailand	**HSR 09** Fatigue in cancer patients receiving chemotherapy: Is there a role for Chinese herbal medicines?
15:30-15:50	**EE 19** Economic evaluation of terlipressin plus albumin for hepatorenal syndrome type I in Thailand	**EE 20** Economic Evaluation of Clinical Pathways Management for Cerebral Infarction in China	**HSR 10** Traditional and complementary medicine (TCM) in Malaysia: HTA role in decision/policy making
15:50-16:10	**EE 21** Cost-utility analysis of shorter regimen for multi-drug resistant tuberculosis (MDR-TB) in Vietnam	**EE 22** Cost-effectiveness of cervical cytology and HPV DNA testingfor cervical cancer screening in Eastern China	**HSR 11** Evaluating the effect of Shanghai Standardized Resident Training Program from the perspective of residents
16:10-16:25	Break		
	Convention Hall 1	**Convention Hall 2**	**Convention Hall 3**
16:25-16:45	**Moderator:** Dr.Sathira Perera **Commentators:** Prof. Anthony Culyer and Dr. Peter Coyte	**Moderator:** Assoc.Prof.Arthorn Riewpaiboon **Commentators:** Prof.John Cairns and Prof. Olivia Wu	**Moderator:** Prof. Brendon Kearney **Commentators:** Dr. Junainah Sabirin and Dr. Ryota Nakamura
	EE 23 Economic evaluation of cholinesterase Inhibitors for Alzheimer's disease treatment in Thailand	**EE 24** Oncologists' preference for treatment for non-small cell lung cancer: An empirical study of discrete choice experiments	**HSR 12** The role of HTA in developing a health policy: The case of peritoneal dialysis (PD) first policy in Thailand
16:45-17:05	**EE 25** Cost-effectiveness analysis of bilateral cochlear implants in children with severe-to-profound sensorineural hearing loss in both ears	**EE 26** Patients' preference for treatment of non-small cell lung cancer: an empirical study discrete choice experiments (DCEs)in China	**HSR 13** Factors associated achievement of treating with anti-vascular endothelial growth factor drugs according to the treatment guideline
17:05-17:25	**EE 27** Cost-utility analysis of vagus nerve stimulation(VNS) for children with intractable epilepsy in Taiwan	**EE 28** Valuation of EQ-5D-5L for the Malaysian population (withdrawn)	**HSR 14** Research on the real-world application of malaria rapid diagnostic testing (RDT) technology and laboratory technicians' awareness and evaluation about it: Based on a survey to primary healthcare providers in Jiangsu province
18:30-21:00	Welcome dinner		

10TH MAY 2018

Main - conference morning session

Time	Activity		
8:30-9:00	Registration		
	Convention Hall 1	**Convention Hall 2**	**Convention Hall 3**
9:00-9:20	**Moderator:** Dr.Asrul Akmal Shafie **Commentators:** Asst.Prof.Unchalee Permsuwan and Prof. Kanchan Mukherjee	**Moderator:** Dr. Wanrudee Isaranuwatchai **Commentators:** Dr. Anthony Kinghorn and Dr.Varalak Srinonprasert	**Moderator:** Dr.Suthee U-sathaporn **Commentators:** Dr. Sitaporn Youngkong, Assoc. Prof. Nithat Sirichotiratana and Dr. Mohamed Gad
	EE 29 Self-labelled Iodine-131-Rituximab Radioimmunotherapy for Non-Hodgkin's Lymphoma: A Systematic Review	**EE 30** Comparison of surgical resection and radiofrequency ablation for the patients with small primary hepatic carcinoma in China	**HSR 15** Priority setting of health problems among migrant workers in Thailand
9:20-9:40	**EE 31** Adjuvant trastuzumab regimen for human epidermal growth factor receptor 2 (HER2) positive early breast cancer (EBC): A systematic review and meta-analysis (withdrawn)	**EE 32** Clinical Hypnoyherapy for Pain Management, Anxiety, Depression and Addiction	**HSR 16** Criteria for Priority Setting in Health Care: A Systematic Review of Evidence from Low & Middle- Income Countries
9:40-10:00	**EE 33** Efficacy of Bortezomib, Thalidomide and Lenalidomide for Relapsed/Refractory Multiple Myeloma Treatment: A systematic review and meta-analysis	**EE 34** Microinvasive Glaucoma Surgery (MIGS) using iStent: A systematic review and meta-analysis	**HSR 17** A pilot study of multiple criteria decision analysis (MCDA) for reimbursement decision: an exercise on metastatic castration-resistant prostate cancer (mCRPC) in Taiwan
10:00-10:20	**EE 35** Antibiotic Prophylaxis of Catheter-Associated Urinary Tract Infections: Systematic Review and Network Meta-Analysis (withdrawn)	**EE 36** Systematic Review of Triage System for Managing Overcrowding Emergency Department: A Meta-Analysis (withdrawn)	**HSR 18** The need for quality improvement of healthcare services in Thailand by using quality standard
10:20-11:00	Coffee break		

Main - conference afternoon session

Time	Activity		
	Convention Hall 1	**Convention Hall 2**	**Convention Hall 3**
11:00-11:20	**Moderator:** Asst.Prof. Dr. Montarat Thavorncharoensap **Commentators:** Dr.Sathira Perera and Dr. Peter Coyte	**Moderator:** Mr. Kwong Hoe Ng **Commentators:** Prof. Olivia Wu and Dr. Jasmine Pwu	**Moderator:** Dr.Junainah Sabirin **Commentators:** Dr. Ryota Nakamura and Assoc. Prof. Wendy Babidge
	EE 37 Effectiveness of Physical Rehabilitation in Advanced Cancer Patients	**EE 38** Adverse Effect of Unhealthy Food and Beverages Marketing to Children: A Systematic Review	**HSR 19** Evaluatin g the influence of non-for-profit status of private health care facilities on their medical costs of long-term care in Shanghai
11:20-11:40	**EE 39** Effectiveness of salt reduction intervention for large-scale population: Systematic reviews and meta-analysis	**EE 40** Effect of sFlt/PIGF ratioon the prediction of pre-eclampsia: A systematic review and meta-analysis	**HSR 20** Emergency medical services use by the elderly: The current situation in Thailand
11:40-12:00	**EE 41** The Effectiveness of Hospital-based Clinical Pathways for Acute Stroke Management: A Systematic Review		**HSR 21** Factors affecting out-of-pocket expenditure on health in Thailand: Results from a two-part model
12:00-13:00	Lunch		
13:00-14:30	**Plenary III: Potential solutions and actions and future commitment needed to overcome the problems** **Moderator:** Prof. Anthony Culyer, University of York, UK **Speakers:** 1. Associate Prof. Dr. Su May Liew, University of Malaya, Malaysia 2. Dr. Hyeong Sik Ahn, Korea University, South Korea 3. Dr. Jasmine Pwu, Ministry of Health and Welfare, Taiwan		
14:30-15:00	Coffee break		
15:00-16:00	Award ceremony Dr. Thawat Suntrajarn, Vice Minister of Ministry of Public Health, Thailand Prof. Anthony Culyer, University of York, UK		
	Closing remarks Dr. Thawat Suntrajarn, Vice Minister of Ministry of Public Health, Thailand		
	Next host Prof. Jeonghoon Ahn, representative form National Evidence-based Healthcare Collaborating Agency (NECA), South Korea		

11TH MAY 2018

HTAsiaLink members meeting

Time	Activity
9:00-10:00	HTAsiaLink members meeting
10:00-10:30	Coffee break
10:30-12:00	HTAsiaLink Board meeting
12:00-13:00	Lunch

HTASIALINK CONFERENCE 2018

8 – 10 MAY 2018, CHIANG MAI, THAILAND

BOARD MEMBERS

Dr. Yot Teerawattananon
President
Founding leader of the Health Intervention and Technology Assessment Programme (HITAP) , Thailand

Dr. Young Sung Lee
Vice-President
Secretariat of National Evidence-based Healthcare Collaborating Agency (NECA), Korea

Dr. Asrul Akmal Shafie
Associate Professor in social and administrative pharmacy, Universiti Sains Malaysia (USM), Malaysia

Professor Brendon Kearney
Chair of Health Policy Advisory Committee on Technology (HealthPACT), Australia

Dr. Jasmine Pwu
Director, National Hepatitis C Program Office, Ministry of Health and Welfare, Taiwan

Dr. Kun Zhao
Professor and Director of Division of Health Policy Evaluation and Technology Assessment, CNHDRC, China

Mr. Kwong Hoe Ng
Head, Evaluation & Appraisal Team, Agency for Care Effectiveness (ACE), Ministry of Health, Singapore

Dr. Nguyen Khanh Phuong
Head of Health Economic Department, Health Strategy and Policy Institute (HSPI), Vietnam

LOCAL ORGANISING COMMITTEE

HTAsiaLink Conference 2018 8 – 10 May 2018, Chiang Mai, Thailand

ADVISOR:

Dr. Yot Teerawattananon
Secretary-General of HITAP Foundation

CHAIR:

Ms. Pattara Leelahavarong
Program Leader, HITAP

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  Advisor and Senior Researcher, HITAP
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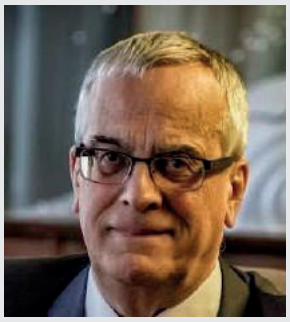
- Ms. Thanaporn Bussabawalai
  Researcher, HITAP
- Ms. On-iriya Fugthaworn
  Executive Operations Coordinator, HIU, HITAP

MODERATORS & SPEAKERS



Professor Anthony Culyer

Professor Anthony Culyer is emeritus professor of economics at the University of York (England), Adjunct Professor at the Institute of Health Policy, Management and Evaluation in the University of Toronto (Canada) and Visiting Professor at Imperial College London. He chairs the Board of the International Decision Support Initiative (iDSI) and was the founding Vice Chair of the National Institute for Health and Care Excellence (NICE) until 2003. He was one of the founding co-editors of the Journal of Health Economics and is Editor-in-Chief of the on-line Encyclopaedia of Health Economics. Tony has published widely, mostly in health economics and has been a member or chaired many policy committees and boards in the UK and Canada.

Dr. Anthony Kinghorn

Dr. Anthony Kinghorn is a health economist and public health consultant working at Wits University, Johannesburg, South Africa. His focus is on evidence-based decision making and incorporating health economics into clinical and public health research and planning. He has an MBBCh (Wits), MA (Oxon) and DHEFM (UCT). Since the 1990s he has led operational and health economics research, as well as management and planning consultancies, in many African countries. He worked for Abt Associates, was a founding director of Health and Development Africa, and then became Health practice lead at HLSP/Mott MacDonald South Africa. Anthony has particular interest in HIV, TB and immunization economics and planning.

Dr. Asrul Shafie

Dr. Asrul Shafie completed his PhD degree in 2007. His research interests are in economic evaluation, and stated preference where he has published numerous peer reviewed journal articles and seven chapters of books/monographs. He is the Editor-in-Chief for the Malaysian Journal of Pharmacy, and editorial board member for Pharmacoeconomics and Value in Health Asian Region journal. He is currently the Board Member for HTAsiaLink Network, core member of ISPOR Code of Ethics Task Force and Co-Chair for the Science Leadership Committee in Young Scientist Network – Academy of Sciences Malaysia. At present, Dr. Asrul is an Associate Professor in social and administrative pharmacy in Universiti Sains Malaysia.

MODERATORS & SPEAKERS

Professor Brendon Kearney

Professor Brendon Kearney has a list of achievements in the health services field that began as a junior hospital doctor in 1969, then advancing to senior managerial health positions. He has contributed to the development and improvement of the Australian healthcare system, proposing recommendations for change, developing statewide frameworks and serving the Australian, and in particular, South Australian community. In 2005, Professor Kearney was awarded the prestigious Sidney Sax Medal by the Australian Healthcare Association in recognition of an outstanding contribution to the field of health services policy, organisation, delivery and clinical research. In 2003 Professor Kearney was awarded a Member in the Order of Australia for service to Medical Administration in South Australia, recognizing his contribution to medical research promotion and his coordination for South Australia of the medical response team assisting victims of the Bali bombings. Professor Kearney is currently the Chair of Health Policy Advisory Committee on Technology (HealthPACT) and past Chair of EuroScan International Network whilst continuing a significant case load in South Australia.

Dr. Damian Walker

Dr. Damian Walker is Deputy Director of Data and Analytics at the Bill & Melinda Gates Foundation. Prior to the joining the foundation in 2010, Damian was an Associate Professor in the Department of International Health, Bloomberg School of Public Health, Johns Hopkins University. Damian has published over 80 peer-reviewed journals, and a dozen book chapters. Damian holds a B.Sc. in economics and a M.Sc. in health economics from the University of York, and a Ph.D. in health economics from the London School of Hygiene & Tropical Medicine.

Dr. Daphne Khoo

Dr. Daphne Khoo is an Executive Director at Agency for Care Effectiveness, Group Director Healthcare Performance at Ministry of Health Singapore. Currently has national leadership roles in the areas of health technology assessment, quality, patient safety and value based healthcare. Has previously led diverse private sector medical affairs teams across 11 countries including India, Vietnam, Singapore, Australia and Hong Kong. Prior to administrative roles, trained as an endocrinologist at the Singapore General Hospital and the Cleveland Clinic, USA and was active in clinical and translational research. Conferred the Nagataki Award for thyroid research by the Asia-Oceania Thyroid Association. Past-President of the ASEAN Federation of Endocrine Societies.

Dr. Hyeong Sik Ahn

Dr. Hyeong Sik Ahn is a health services researcher at the Korea University College of Medicine, and School of Public Health. He graduated with a degree in medicine from the Seoul National University in 1985. He completed his post graduate training and was board certified in Preventive Medicine in 1990. He then received a PhD in preventive medicine from the Seoul National University in 1995. He had worked in Korea University as a professor and chairman of the Department of Preventive Medicine since 1996. He has been working on quality of health care, evidence based medicine and is a leader on a variety projects for health policy and health care utilization field. He totally published 120 papers on international and Korean refereed journals, and is the author of six chapters of five books. His research has been supported by grants from the following sources: Ministry of Health and Welfare, Korean government, Academic Institute in Korea, and National Insurance Cooperation. He also worked on development of academic organization on his research field including Korean Branch of Cochrane Collaboration, and has appointed as director of Institute for Evidence based Medicine. He is a former dean of School of Public Health, Korea University.

Dr. Jasmine Pwu

Dr. Jasmine Pwu is the Director, National Hepatitis C Program Office, Ministry of Health and Welfare, Taiwan. She also is adjunct Assistant Professor at the Taipei Medical University and Fu Jen Catholic University. She has over 20 years of research experience in healthcare decision analysis. She was one of the pioneers of the Health Technology Assessment (HTA) development in Taiwan – worked in Division of HTA, Center for Drug Evaluation in Taiwan since 2007. Her experiences has led to her participation in variousreimbursement and listing decisions of various National Health Insurance services; as well as several research projects designed to aid health policy decision -making.

Professor Jeonghoon Ahn

Professor Jeonghoon Ahn is an associate professor at the Ewha Womans University (EWU) and an adjunct fellow at the National Evidence-based healthcare Collaborating Agency (NECA). His main research area is economic evaluation of health technologies. Before joining the EWU in March 2016, Dr. Ahn was a senior research fellow and executive director at the NECA. He was an assistant professor of pharmaceutical economics and Policy at the University of Southern California before joining the NECA. He received his B.A. in International Economics (1992) and M.A. in Economics (1994, with an emphasis on Econometrics) from the Seoul National University and Ph.D. in Economics (2000, with an emphasis on Health Econometrics) from the USC. From 2000 to 2002, he was the DIA postdoctoral fellow on pharmacoeconomics and outcomes research at the University of Maryland School of Pharmacy. Dr. Ahn is currently serving in the Drug Reimbursement Evaluation Committee of the Health Insurance Review and Assessment Agency (HIRA). He also had served to many professional organizations such as board director for HTAi and INAHTA. Dr. Ahn also contributed to form a regional Health Technology Assessment agency network, the HTAsiaLink (www.htasialink.org), along with other experts in the region.

Professor John Cairns

Professor John Cairns graduated MA (Hons) in Economic Science from the University of Aberdeen. After a year of graduate study at the University of York he spent two years as a research fellow in the Institute for Social and Economic Research. This was followed by a return to the University of Aberdeen where he spent eleven years as a lecturer in the Department of Economics. In 1989 he took up a post as senior research fellow in the Health Economics Research Unit and was appointed director in 1993. He was awarded a personal chair in 2002. He took up his current post in May 2004. In 2016-17 lecturer on MSc Public Health modules Economic Evaluation and Economic Analysis for Health Policy. Lecturer on the certificate in Pharmacoepidemiology. Seminar leader for Economic Analysis for Health Policy. Deputy module co-ordinator on the distance learning module Economic Evaluation.

Dr. Junainah Sabirin

Dr. Junainah Sabirin is a Public Health Physician, who graduated from University of Malaya, Malaysia (MBBS and MPH). She is currently the Deputy Director of the Malaysian Health Technology Assessment Section (MaHTAS), Medical Development Division, Ministry of Health, Malaysia. She has been working in MaHTAS for the last 10 years and has been involved in conducting health technology assessment for various types of health technologies as an input to policy or decision making for health technologies especially for facilities under the Ministry of Health, Malaysia. She is currently responsible for the implementation HTA activities including local economic evaluation, Horizon Scanning activities, Evidence-based Clinical Practice Guidelines development and implementation, Value Based Medicine and related training. Also has the experienced of working in hospital, district health offices and Disease Control Division, Ministry of Health, Malaysia.

Professor Kalipso Chalkidou

Professor Kalipso Chalkidou is the director of global health policy for the Centre for Global Development, based in London, and a Professor of Practice in Global Health at Imperial College London. Her work concentrates on helping governments build technical and institutional capacity for using evidence to inform health policy as they move towards Universal Healthcare Coverage. She holds a doctorate on the molecular biology of prostate cancer from the University of Newcastle (UK), an MD (Hons) from the University of Athens and is a visiting Professor at King's College London and an adjunct professor at Griffith University in Australia.

MODERATORS & SPEAKERS

Dr. Karen Joanne Hofman

Dr. Karen Joanne Hofman is a Director of PRICELESS SA at Wits School of Public Health. Dr. Karen graduated from the University Of Witwatersrand School Of Medicine (South Africa). She was on faculty at Johns Hopkins and directed the Policy and Planning at the USNIH Fogarty Center. Under her leadership, PRICELESS performs policy research that provides good return on investment for maternal and child interventions including vaccines and has impacted SA life expectancy by impacting regulations on the salt content of processed food and legislation for a sugary beverage tax; both are now law. She is a member of the Academy of Science of South Africa and in 2016 received the Public Health Association of South Africa Annual Award.

Dr. Katharina Hauck

Dr. Katharina Hauck is a Senior Lecturer in Health Economics at the School of Public Health, Imperial College London. She is specialized in the economics of infectious diseases and the evaluation of complex public health interventions with quantitative methods. Her specific research interests focus on the economics of HIV/AIDS, and health system strengthening. Katharina holds a PhD in Economics from the University of York, United Kingdom.

Kwong Ng

Kwong Ng joined the Singapore Ministry of Health in 2015 as the Head of Evaluation, the Agency of Care effectiveness (ACE). He has experience in both public and private sectors. He was formerly a Director from the pharmaceutical and device industry responsible for market access, health economics, outcomes research and pricing in the Asia Pacific region. He is familiar with health technology assessment (HTA) methodologies and requirements in various Asia Pacific countries. Before his move back to Singapore, he was working in Australia implementing national educational programs to change clinical practice behaviour and conducting pharmacoeconomics evaluation of industry submissions for national drug subsidy contracted by the Australian government. He has qualifications in pharmacy, public health and health economics.

MODERATORS & SPEAKERS

Dr. Kun Zhao

Dr. Kun Zhao is the Professor and Director of Division of Health Policy Evaluation and Technology Assessment in China National Health Development Research Center which is affiliated to Ministry of Health in China. Dr. Zhao received her MD in public medicine from China Medical University and MHSc in Health Care and Epidemiology from the University of British Columbia in Canada. She also undertook the PhD training program of health economic evaluation in the University of Waterloo in Canada and the CIHR/MSFHR strategic training program for partnering in health research in UBC. Since 2007, Dr. Zhao plays the leading role in HTA development and training programs in China, and as principle investigators conducts a series of national HTA projects.

Dr. Liew Su May

Dr. Liew Su May is a Senior Fellow of the Centre for Evidence Based Medicine. Having completed her DPhil at, Oxford University, she has now returned to her position as an academic clinical consultant at the University of Malaya. She is the Chief Editor of the Malaysian Family Physician and is presently working with a team to translate the book 'Testing Treatments' to Malay. Her research interests extend from the use of evidence in clinical practice to infectious disease. Previously, as a fellow of the AsiaLink program, she helped to run EBM workshops in Malaysia, Indonesia and United Kingdom and still continues to do so.

Dr. Lumbwe Chola

Dr. Lumbwe Chola is a Health Economist at the University of the Witwatersrand, School of Public Health in South Africa. He has a BA in Economics from the University of Zambia, MPhil in Health Systems Research and PhD in Health Economics from the University of Bergen (Norway). He has previously worked at Stellenbosch University as a Lecturer and Senior Researcher at the Human Sciences Research Council in South Africa. He has also worked in Zambia as a Statistician at the Central Statistics Office. Dr. Chola has interests in priority setting for the improvement of maternal, newborn and child health, and has led projects to generate the best buys for maternal, and child health in South Africa.

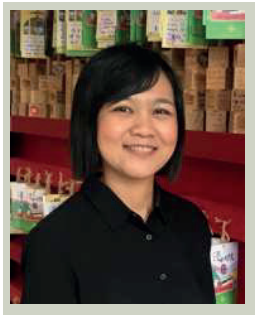
MODERATORS & SPEAKERS

Professor Mark Jit

Professor Mark Jit is professor of vaccine epidemiology at the London School of Hygiene & Tropical Medicine (LSHTM), senior scientist in the Modelling and Economics Unit of Public Health England (PHE) and visiting professor at the School of Public Health, University of Hong Kong. His research group focuses on epidemiological and economic modelling of vaccines to support evidence-based public health decision making. He has published over 100 papers covering a range of vaccine antigens including measles, HPV, pneumococcus, rotavirus, influenza, dengue and EV71, as well as methodological papers advancing the ways vaccines are evaluated.

Professor Olivia Wu

Professor Olivia Wu is Professor of Health Technology Assessment (HTA) and Director of the Health Economics and Health Technology Assessment (HEHTA) Research Unit at the University of Glasgow. She is also the Director of the Complex Reviews Support Unit, funded by the UK National Institute for Health Research. Olivia's research interest in HTA methodologies focuses on the areas of evidence synthesis, risk prediction modelling and economic evaluation. She has undertaken research in a variety of clinical areas including cardiovascular disease, haematology, obstetrics and gynaecology, and rheumatology. In addition to her research, Olivia serves as member of Technology Appraisal Committee for the National Institute for Health and Care Excellence (NICE) and health economics advisor to the Scottish Medicines Consortium (SMC).



Dr. Pakakrong Kwankhao

Dr. Pakakrong Kwankhao is a head of center of evidence based Thai Traditional and Herbal Medicine, Chao Phya Abhaibhubejhr hospital, Ministry of Public Health, Thailand. Miss Pakakrong is a pharmacist, having graduated from Khon kaen University (Thailand). Currently, she is studying a Ph.D. in Pharmacy Administration at Mahidol University (Thailand). She has been working in Chao Phya Abhaibhubejhr hospital for 18 years. Chao phya Abhaibhubejhr hospital is a model in integration of Thai Traditional medicine in its medical services. She has involved in gathering, analyzing and evaluating clinical and non-clinical evidence of herbal medicine used in health system of Thailand.

MODERATORS & SPEAKERS

Professor Peter C. Smith

Professor Peter C. Smith is Emeritus Professor of Health Policy at Imperial College and Professor of Global Health Economics at the University of York. His main research interests are in the finance and efficiency of health systems, with a special emphasis on the link between research evidence and policy. Current interests include: health system modelling; measuring and improving health system productivity; and universal health coverage. With colleagues he has published widely on these and related topics, including over 150 refereed papers and 14 books as author or editor.

Professor Dr. Pisake Lumbiganon

Professor Dr. Pisake Lumbiganon is a Professor of Obstetrics and Gynecology, Convenor of Cochrane Thailand and Director of the WHO Collaborating Centre on Research Synthesis in Reproductive Health based at Faculty of Medicine, Khon Kaen University, Thailand. He is also the President of the Royal Thai College of Obstetricians and Gynaecologists and the Vice President of Asia Ocenia Federation of Obstetrics and Gynecology. He got his MD and Obstetrics and Gynaecology training from Ramathibodi Hospital, Mahidol University in Thailand and Master of Sciences in Clinical Epidemiology from the University of Pennsylvania in the US. He has been convening the Thai Cochrane Network since its incetion in 2002. His main areas of interest includes maternal and perinatal health, evidence based practices, systematic review and meta-analysis.

Dr. Ranjeeta Thomas

Dr. Ranjeeta Thomas is a Research Fellow in the Department of Infectious Disease, School of Public Health, Imperial College London. Dr. Thomas is a Health Economist and graduated from the University of York (United Kingdom) with a PhD in Economics. Her interests are in applying quasi-experimental methods to evaluate large scale health programs; cost-effectiveness of health system interventions and evaluating through randomized controlled experiments, behavioral economics interventions to improve uptake and adherence to efficacious HIV prevention methods.

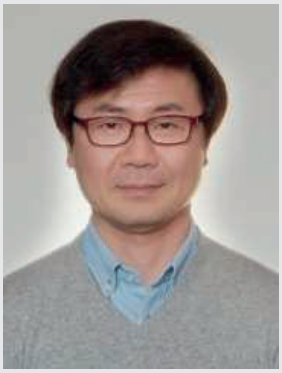
MODERATORS & SPEAKERS

Rintaro Mori

Rintaro Mori is Director, Department of Health Policy, National Center for Child Health and Development in Japan. After paediatric training in Japan, he practiced in Australia, Nepal and the UK as a senior paediatrician and studied epidemiology/public health at the London School of Hygiene & Tropical Medicine before involved in guideline development for NICE, UK. He has also actively been involved in research/aid-works in Madagascar, Bangladesh and Mongolia, as well as research in health systems and women's and children's health at the both national and global level. He is Director of Cochrane Japan, and Visiting Professor of Kyoto University, involved in many WHO guideline developments.

Dr. Sathira Kasun Perera

Dr. Sathira Kasun Perera is a health economist with a background in medicine and public health, currently affiliated to University of New South Wales for his doctoral research work. He is playing a key role in introducing the concepts of Health Technology Assessment to Sri Lanka. Dr. Perera, having graduated from the University of Colombo, Sri Lanka (2007) and University of Adelaide, Australia (2013) has been working for the Ministry of Health, Sri Lanka for eight years. He has gained experience as a clinician, public health manager and a health economist while contributing to health system improvements via health services research and economic evaluations.



Dr. Seok-Hyun Kim

Dr. Seok-Hyun Kim is the Head of Coordinating Center for National Health Clinical Research at the National Evidence-based Healthcare Collaborating Agency (NECA) in Seoul, Republic of Korea since 2018. He was an Executive Director of the Division for New Health Technology Assessment at NECA and has overseen the new health technology approval system for the introduction of new technology in the Republic of Korea from 2014 to 2017. Before joining NECA, Dr. Kim was a Senior Researcher at the National Cancer Center in Korea. His research focused on carcinogenesis mechanism driven by oncogene activation in human primary cell transformation system. Dr. Kim received his MD and PhD at Yonsei University Medical College and trained as a cancer biologist at the University of Pennsylvania Medical School in the United States.

Dr. Somsak Chunharas

Dr. Somsak Chunharas is the former Deputy Minister for Ministry of Public Health of Thailand. Dr. Chunharas is a medical doctor with training and extensive experiences in Public Health, health system research and policy development. He has been a member of various national and international committees and boards including the Scientific Advisory Committee to the Prince Mahidol Award Foundation, the Office of the National Anti-Corruption Commission, the World Commission on Ethics in Sciences and Technology (UNESCO), the Advisory Commission on Health Research (ACHR) of 2 regional offices (Eastern Mediterranean Region and South East Asia region) as well as HQ of the World Health Organization (WHO), the Medical Council of Thailand. He has also been a vice Chairperson of Foundation of Thai Gerontology Research and Development Institute; chairman of Community Health Research and Development Foundation; president of Medical cluster, National Sciences and Technology Development Agency (NSTDA); Chairman of working group of Benefit package Development for Health Promotion and Disease Prevention under Universal Coverage Scheme, National Health Security Office as well as many others. Presently Dr. Chunharas holds various positions in several committees including the chair of Steering Board of Routine to Research Project Thailand, supported by Health Promotion Fund and Vice President to the National Health Foundation, Thailand. Dr. Chunharas' expertise in public health policy has allowed him to assume directorship positions throughout his career. In addition to his leadership roles, Dr. Chunharas has also had extensive experience in research in public health. As a result he has authored and co-authored several peer-reviewed journal publications as well as organizational documents and reports throughout his career.

Dr. Suwit Wibulpolprasert

Dr. Suwit Wibulpolprasert is a general practitioner, a public health specialist, a policy advisor, and advocator. He has experience in human resources for health; health economics; disease surveillance control; and pharmaceuticals. Dr. Suwit is also the Vice Chair of the International Health Policy Program Foundation (IHPF) and the Health Intervention and Technology Assessment Foundation (HITAF). Prior to his retirement, he served the highest government official rank as a Senior Advisor in Disease Control to the Thai Ministry of Public Health. Since December 2015, he is as an adviser to the Ministry of Public Health on Global Health. Currently, he also serves as a Member of the National Health Security Board, Health Systems Research Institute Board, and the National Research and Innovation Policy Council.

Dr. Tracey Chantler

Dr. Tracey Chantler is a Research Fellow in Public Health Evaluation at the London School of Hygiene and Tropical Medicine (LSHTM). She is a medical anthropologist with expertise in ethnographic and qualitative research methods. Her fields of expertise are immunization, ethics and theory-based evaluation of public health interventions. Dr.Chantler has a background in community health development and nursing and graduated with a PhD from LSHTM in 2012. Her research profile includes a wide range of studies taking place in England, Ethiopia, Uganda and China. She is also a member of the LSHTM Ethics committee and teaches on medical anthropology and social science masters level modules.

Usa Chaikledkaew

Usa Chaikledkaew received her bachelor's degree in Pharmacy with the first class honor and pursued her master degree in Economics and Ph.D. degree in Pharmaceutical Economics and Policy at the University of Southern California, USA. She is currently an Associate Professor at the Faculty of Pharmacy, Mahidol University. Since 2006, she has been a research consultant and one of the founders who established the Health Intervention and Technology Assessment Program (HITAP). Currently she is the Chair of Postgraduate Program in Health Technology Assessment at Mahidol University. Most of her pharmacoe-conomics studies have been published in peer-reviewed international journals and used as the information to assist policy makers for making decisions on the development of National List of Essential Drug (NLED) and the benefit package of the National Health Security Office. In addition, she is an editor of the First and Second Guidelines for Health Technology Assessment in Thailand. Moreover, she is currently a committee of health economics working group under the Subcommittees of NLED.

MODERATORS & SPEAKERS

Professor Vicharn Panich

Professor Vicharn Panich graduated from the Faculty of Medicine Siriraj Hospital, University of Medical Sciences (now Mahidol University) in 1966. After one year internship he went to further his study at the Department of Human Genetics, University of Michigan Medical School and received Master of Science in Human Genetics in 1968. He has worked at the Hematology Division, Department of Medicine, Faculty of Medicine Siriraj Hospital for 6 years and moved to a new medical school at Prince of Songkla University, Hat Yai where he became head of the Department of Pathology, Dean of the Faculty of Medicine and Vice President of the university. He has done research on glucose-6-phosphate dehydrogenase deficiency in Thailand. In 1993 he became the founding director of the Thailand research Fund where he served for eight years. From 2003 to 2008 he served as founding director of Knowledge Management Institute. Now Professor Vicharn Panich sits in the university council of three universities. He serves as chairman of the board of 7 foundations and member of the board of 3 foundations. He has written 13 books on education, 3 books on knowledge management, 3 books on research management, and 3 books on university governance, all in Thai. He regularly writes in the Gotoknow blog (in Thai) at *https://www.gotoknow.org/blog/thaiKM, https://www.gotoknow.org/blog/council, and https://www.gotoknow.org/blog/thai-politics*

Waranya Rattanavipapong

Waranya Rattanavipapong is the head of HITAP International Unit(HIU). She joined Health Intervention and Technology Assessment Program (HITAP) in February 2010. She was graduated with Bachelor's Degree in Pharmacy, major in Social and Administrative Pharmacy & Clinical Pharmacy from Srinakharinwirot University in 2008. In 2013, she was awarded the Capacity Building of Researchers in Health Policy and System Research Scholarship, International Health Policy Program Foundation to pursue a Master's degree in Health Economics and Decision Modelling from the University of Sheffield and graduated in 2014. She is interested in conducting economic evaluation of health interventions and programs, particularly pharmacoeconomic research. During the past five years, she involved in several research projects to support national and international policy making.

Assoc. Prof. Wendy Babidge

Assoc. Prof. Wendy Babidge is Director of the RAAS Division of the College. This Division has a base in Adelaide, and staff across all regions in Australia. Wendy oversees all activities in the Division, ASERNIP-S, the College morbidity and mortality audits, the provision of scholarships for surgical research and the Section of Academic Surgery. Wendy is on the Scientific Committee for HTAiRome (June 2017) Conference. Wendy has an Honours Degree in Biotechnology, a PhD from the University of Adelaide and a Graduate Diploma in Business. She is a Graduate of the Australian Institute of Company Directors and a Fellow of the Australian Institute of Management. She is the past Chair of the International Network of Agencies for HTA Board (Chairing The Nominations Committee), and is the Editor in Chief for the International Journal of Technology Assessment in Healthcare.

MODERATORS & SPEAKERS

Dr. Yaolong Chen

Dr. Yaolong Chen is a professor at Evidence-Based Medicine Center of Lanzhou University. He is the co-director of WHO Collaborating Centre for Guideline Implementation and Knowledge Translation and the founding director of Chinese GRADE Centre. He having graduated from the Lanzhou University of China with a MD. He authored more than 150 academic papers on clinical trial, meta-analysis and practice guideline. He is an editor of Testing Treatment Interactive Chinese (http://www.testingtreatments.org).

Dr. Yot Teerawattananon

Dr. Yot Teerawattananon is a Founding Leader of the HITAP of the Thai Ministry of Public Health of which its works have been used to inform health benefit package of the Universal Health Coverage Scheme. He previously served as a medical doctor and director of Pong Hospital in northern Thailand before completing his Ph.D.in Health Economics from UK in 2006. Dr. Yot has gone on to provide technical advice to many national and international agencies such as the Gates Foundation, WHO, World Bank, Asian Development Bank and the Centre for Global Development (CGD), giving him a broad knowledge of key issues in global health. He has also worked in Bhutan, Indonesia, the Philippines, Nepal, Myanmar, Sri Lanka and Vietnam. He is also in the World Health Report 2013 of the World Health Organization as a role model organization informing policy decisions to support Universal Health Coverage in resource limited settings. Dr. Yot is also one of the founders of HTAsiaLink a regional network comprising of governmental health technology assessment agencies throughout Asia

Dr. Young Sung Lee

Dr. Young Sung Lee is the president of National Evidence-based Healthcare Collaborating Agency (NECA), the Health Technology Assessment (HTA) agency in Korea. Dr. Lee is also a professor of Health Informatics and Management at the College of Medicine, Chungbuk National University. He was a visiting scholar at Stanford University Medical Media and Information Technology, and was a member of Committee on Infrastructure Technologies, National Science and Technology Council, the highest decision making body on science and technology policies under the President of Republic of Korea. He is currently serving as a board member of the Korean Society of Medical Informatics. He has contributed to develop the medical informatics in Korea over the last two decades.

ORAL PRESENTATION

ECONOMIC EVALUATION ABSTRACTS

9 May 2018			
11:00-11:20	**EE 01**	Sustained Virological Response and Safety of Direct-Acting Antivirals for Hepatitis C Genotype 5 and 6: A Systematic Review And Meta-analysis	Vietnam
11:00-11:20	**EE 02**	Enhancing accessibility of treatment for metastatic renal cell carcinoma in Malaysia	Malaysia
11:20-11:40	**EE 03**	Moving Towards HTA Institutionalisation in the Philippines: A Pilot Assessment on Sitagliptin for Type 2 Diabetes Patients with Chronic Kidney Disease	Philipines
11:20-11:40	**EE 04**	Economic Evaluation of Cetuximab for patients with Metastatic Colorectal Cancer (mCRC)	Indonesia
11:40-12:00	**EE 05**	Assessing Clinical Outcomes and Price of Analogue Insulins Compared with Human Insulins for Type 2 Diabetes: Meta-analysis and Price Survey	Indonesia
11:40-12:00	**EE 06**	Cost-utility analysis of bortezomib, thalidomide and lenalidomide for relapsed/refractory multiple myeloma treatment	Thailand
13:00-13:20	**EE 07**	Post-stroke Rehabilitation Cost with Traditional Therapy: An Evidence from Public Hospital in Vietnam	Vietnam
13:00-13:20	**EE 08**	Towards the introduction of pneumococcal conjugate vaccines in Bhutan: A cost-utility analysis to determine the optimal policy option	Bhutan
13:20-13:40	**EE 09**	Survival rate and Costs in Primary Hepatocellular Carcinoma with Cirrhosis	Korea
13:20-13:40	**EE 10**	Cost-effectiveness of 13-Valent Pneumococcal Conjugate Vaccine in the treatment of Invasive Pneumococcal Disease among Children Under 5 in China	China
13:40-14:00	**EE 11**	Cost analysis of stigmatization and discrimination reduction package in health care settings	Thailand
13:40-14:00	**EE 12**	Cost-Effectiveness of Dengue Vaccine introduction in Dhaka City, Bangladesh	Bangladesh
14:00-14:20	**EE 13**	Predicting the cost neutral price for vaccines in Lower Middle-Income Countries: A case study of cost neutral pricing of dengue vaccine in Sri Lanka	Australia
14:00-14:20	**EE 14**	The Willingness to Pay (WTP) for a Hypothetical Dengue Vaccine in Penang, Malaysia	Malaysia
14:20-14:40	**EE 15**	An economic evaluation of tocilizumab use in the treatment of systemic juvenile idiopathic arthritis	Thailand
14:20-14:40	**EE 16**	The cost-effectiveness analysis of rotavirus vaccine in low- and low-middle income countries: A systematic review and meta-analysis	Bangladesh
15:10-15:30	**EE 17**	Cost-utility analysis of pemetrexed plus platinum-base for malignant pleural mesothelioma treatment	Thailand
15:10-15:30	**EE 18**	Cost-effectiveness analysis of mass media campaign of alcohol consumption control (No Alcohol during Buddhist Lent) in Thailand	Thailand

15:30-15:50	**EE 19**	Economic evaluation of terlipressin plus albumin for hepatorenal syndrome type I in Thailand	Thailand
15:30-15:50	**EE 20**	Economic Evaluation of Clinical Pathways Management for Cerebral Infarction in China	China
15:50-16:10	**EE 21**	Cost-utility analysis of shorter regimen for multi-drug resistant tuberculosis (MDR-TB) in Vietnam	Vietnam
15:50-16:10	**EE 22**	Cost-effectiveness of cervical cytologyand HPV DNA testingfor cervical cancer screening in Eastern China	China
16:25-16:45	**EE 23**	Economic evaluation of cholinesterase Inhibitors for Alzheimer's disease treatment in Thailand	Thailand
16:25-16:45	**EE 24**	Oncologists' preference for treatment for non-small cell lung cancer: An empirical study of discrete choice experiments	China
16:45-17:05	**EE 25**	Cost-effectiveness analysis of bilateral cochlear implants in children with severe-to-profound sensorineural hearing loss in both ears	Singapore
16:45-17:05	**EE 26**	Patients' preference for treatment of non-small cell lung cancer: an empirical study discrete choice experiments (DCEs)in China	China
17:05-17:25	**EE 27**	Cost-utility analysis of vagus nerve stimulation(VNS) for children with intractable epilepsy in Taiwan	Taiwan
17:05-17:25	**EE 28**	Valuation of EQ-5D-5L for the Malaysian population	Malaysia

ECONOMIC EVALUATION ABSTRACTS WEDNESDAY, MAY 9 2018

MODERATOR

- Prof. Jeonghoon Ahn
- Asst.Prof. Dr. Montarat Thavorncharoensap
- Dr. Jasmine Pwu
- Dr.Sathira Perera
- Mr. Kwong Hoe Ng
- Dr. Anthony Kinghorn
- Dr.Varalak Srinonprasert
- Assoc.Prof.Arthorn Riewpaiboon

COMMENTATOR

- Prof. Antony Culyer
- Assoc.Prof.Arthorn Riewpaiboon
- Prof. Jeonghoon Ahn
- Prof. Marc Suhrcke
- Dr. Lumbwe Chola
- Dr.Asrul Akmal Shafie
- Dr. Peter Coyte
- Prof.John Cairns
- Dr. Katharina Hauck
- TBC
- Dr. Damian Walker
- Prof. Olivia Wu
- Dr. Wanrudee Isaranuwatchai
- Dr. Mohamed Gad

EE 01 Sustained Virological Response and Safety of Direct-Acting Antivirals for Hepatitis C Genotype 5 and 6: A Systematic Review And Meta-analysis

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[1] Health Technology Assessment Postgraduate Program, Mahidol University, Thailand;

[2] Health Strategy and Policy Institute, Vietnam Ministry of Health, Vietnam;

[3] Social and Administrative Pharmacy Excellence Research (SAPER) Unit, Faculty of Pharmacy, Mahidol University, Thailand;

[4] Pharmaceutical Division, Department of Health, Philippines;

[5] Division of Gastroenterology and Hepatology, Department of Medicine, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand;

[6] Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Thailand

OBJECTIVE

Direct acting antivirals (DAAs) have been increasingly used for treatment of chronic HCV infection, but most evidences available were mainly for HCV genotypes 1 to 4. Therefore, this systematic review and meta-analysis was conducted to estimate the efficacy and safety of DAAs for HCV genotypes 5 and 6.

METHODS

Studies were identified from Medline and Scopus databases since inception until June 12th, 2017. Descriptive or comparative clinical trials were included if their patients were HCV genotype 5 and 6, studied any type of DAAs, and had outcomes as sustained virological response at week 12 (SVR12) or serious adverse events (SAE). Meta-analysis was performed using a fixed-effect model if heterogeneity was not present; otherwise, a random-effect model was applied.

RESULTS

A total of 10/844 clinical trials were eligible for pooling. Among them, 4 (n = 95) and 9 (n = 136) trials studied in genotype 5 and 6, respectively. DAA regimens were single (i.e. sofosbuvir + ribavirin ± pegylated interferon), duplet (i.e. sofosbuvir/velpatasvir, sofosbuvir/ sofosbuvir) and triplet (i.e. sofosbuvir/ velpatasvir/ voxilaprevir) in 3, 6, and 2 trials, respectively. Pooling SVR12 rates in genotype 6 for single, duplet, and triplet DAA regimens were 1.00 (95% CI: 0.91, 1.00),1.00 (95% CI: 1.00, 1.00), and 1.00 (95% CI: 0.98, 1.00), respectively.

Only doublet regimen was pooled for genotype 5 with the pooled SVR12 rate of 0.96 (95% CI: 0.90, 1.00). Regarding safety, the pooled SAE rate of both genotypes was 0 (95% CI: 0, 0.04).

DISCUSSION AND CONCLUSIONS

DAAs are highly effective and safe for the treatment of chronic HCV infection with genotypes 5 and 6. However, none of included clinical trials were comparative studies, and relative treatment effects comparing with other treatment regimens are still lack. A larger scale RCT for these genotypes alongside economic evaluations are required.

EE 02 Enhancing accessibility of treatment for metastatic renal cell carcinoma in Malaysia

Ku Nurhasni KAR[1], Nur Farhana M.[1], Izzuna Mudla MG.[1], Junainah S.[1], Sharifa Ezat WP[2]

[1]Malaysian Health Technology Assessment Section, Medical Development Division/ Ministry of Health Malaysia,

[2] National University of Malaysia

OBJECTIVE

Sunitinib and Pazopanib have been shown to benefit the metastatic renal cell carcinoma patients as evidence suggested that these treatments have a comparable clinical effectiveness. However, no local economic evaluation was known to determine the value of these treatments in Malaysia. Therefore, a cost minimisation analysis has been conducted to estimate the financial implication of Sunitinib and Pazopanib as first line treatment for metastatic renal cell carcinoma in Malaysia.

METHODS

A state transition model was developed using Microsoft Excel® 2010 with a hypothetical cohort modeled over 148 week's time-horizon with a four- weekly cycle. There were five treatment groups; Pazopanib, conventional 4/2 Sunitinib , 2/1 Sunitinib, attenuated Sunitinib and continuous Sunitinib Three health states were included in this model as progression free, disease progression and dead. A discount rate was applied as 3% as recommended in the Pharmacoeconomic Guidelines for Malaysia. The transition probabilities were derived from the published Kaplan Meier Curves. Frequencies of the adverse events were sourced from published literatures. Costs were estimated using the local data. Uncertainty analyses were conducted as one way and scenario analysis.

RESULTS

Average total cost per patient were approximately between RM51,000 to RM70,000 for various dosing schedules of Sunitinib and RM61,000 for Pazopanib. Variability in the treatment mix demonstrated a range of incremental cost per patient between RM-9,600 to RM 8,500. One way sensitivity analysis revealed that the average total cost per patient was within RM 50,000 to RM 72,000.

DISCUSSION AND CONCLUSIONS

Sunitinib and Pazopanib have considerably comparable average healthcare cost per patient; thus supporting the access of both treatments. Attenuated dosing schedule has been shown to be the most cost saving treatment with relatively fair differences compared with Pazopanib. This result was expected as attenuated dosing schedule reduced the dose of the Sunitinib.

EE 03 Moving Towards HTA Institutionalisation in the Philippines: A Pilot Assessment on Sitagliptin for Type 2 Diabetes Patients with Chronic Kidney Disease

BAYANI, Diana Beatriz[1], DELA PENA, Anjo, GO[1], Janielle Kristine[1], TANEO, Mary Joy[1], UY, Geovin Dexter[1], URSU, Ioana[2]

[1]HTA Study Group, Health Policy Development and Planning Bureau, Department of Health, Philippines

[2]EU-Philippine Health Sector Reform Contract Consultant

OBJECTIVE

The Philippine government has just established a core health technology assessment (HTA)entity that generates evidence to inform formulary decisions and expansion of benefit packages in the social health insurance program. This paper aims to describe the processes that the Department of Health has undertaken to strengthen the use of HTA for priority setting in the health sector.

METHODS

To test its recently established value framework on HTA, a pilot study was conducted on a priority intervention using a recently established criteria, methods and process. The topic for HTA was selected based on burden of disease, effectiveness, unmet need, and household financial impact. Given the limited options for treatment for type 2 diabetes patients with chronic kidney disease, sitagliptin, a dipeptidyl peptidase-4 inhibitor was evaluated compared to current treatment standards: NPH insulin and gliclazide, a sulfonylurea. A systematic review was conducted to obtain treatment effectiveness parameters, supplemented by an analysis of local cost data on the treatments, maintenance, monitoring, and adverse events. Real-world evidence was used to model progression of renal impairment. Results were presented as incremental cost-effectiveness ratios (ICER) in US dollars.

RESULTS

Based on the evidence to date, sitagliptin can potentially be cost-effective based on the current threshold if there is a significant reduction in the prevailing list price (ICER: USD 194,192.68 versus gliclazide; USD 35,884.63 versus insulin). Cost- effectiveness was driven by treatment costs, rate of severe hypoglycemic and monitoring costs.

Overall, more real-world evidence is needed on the specific subgroup of patients in terms of efficacy and safety.

DISCUSSION AND CONCLUSIONS

Lessons from the pilot HTA were used to develop the manual of procedures for the national HTA program of the Philippines. The next steps will focus on strengthening the newly created capacity for HTA research for the process to be more robust and responsive to the needs of the decision makers. However, the study provided an explicit use of HTA through the national formulary, which will inform reimbursement and pricing of drugs in the public sector.

EE 04 Economic Evaluation of Cetuximab for patients with Metastatic Colorectal Cancer (mCRC)

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OBJECTIVE

Cetuximab, a recombinant monoclonal antibody, has been widely used for patient with Kirsten rat sarcoma (KRAS)wild type (WT) metastatic colorectal cancer (mCRC). However, the drug was one of the biggest spent in the national insurance claim data. This study aims to evaluate the cost-effectiveness of cetuximab in combination with standard chemotherapy compared with chemotherapy alonefor mCRC patients.

METHODS

We performed aMarkov model based economic evaluation using societal perspective with a time horizon of five years, a cycle length of one month, and annual discount rate of 3% for both cost and outcome. We collected clinical data from review of systematic review, anddirect-medical costs data from billings in four hospitals, retrospectively. Moreover, we interviewed mCRC patients to collect indirect costs and utility data using EuroQoL EQ-5D-5L.

RESULTS

The study assessed the effectiveness of cetuximab andfluorouracil-leucovorin plus irinotecan (FOLFIRI) or oxaliplatin (FOLFOX), versus FOLFOX or FOLFIRI alone. The review indicated that combination therapy was fairly more effective than single chemotherapy. The cost of cetuximab plus chemotherapy was higher than chemoterapy alone; however, the quality-adjusted life years (QALYs) of both arms were not substantially different. This would lead to incremental cost and effectiveness beyond the threshold of three times gross domestic product (GDP).

DISCUSSION AND CONCLUSIONS

This study indicated that the addition of cetuximab to chemotherapy does not provide good value-for-money alternative to chemoterapy alone for patients with KRAS WT mCRC.

EE 05 Assessing Clinical Outcomes and Price of Analogue Insulins Compared with Human Insulins for Type 2 Diabetes: Meta-analysis and Price Survey

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OBJECTIVE

To assess the effectiveness of analogue compared with human insulins in uncontrolled type 2 diabetes patients, and to assess the price of insulin in Indonesia.

METHODS

We updated existing systematic reviews (2007 and 2012) on the effectiveness of analogue and human insulins. We searched MEDLINE, EMBASE, Cochrane Databases to identify newly published RCTs. Study subjects were insulin-naive and uncontrolled type 2 adult diabetic patients after oral antidiabetics. We collected data on insulin price in Indonesia and neighboring countries.

RESULTS

Out of studies included in 2 existing systematic reviews, only 7 met our criteria. There were 2 new RCTs (2012, 2015) met our criteria, so that 9 RCTs were included in our study, i.e., 7 with long-acting, one premixed, and one rapid-acting analogue insulins. Meta-analysis of 7 RCTs of long-acting analogue insulin showed that analogue was superior to human insulin in lowering HbA1c with weighted mean difference of -0.234% (95%CI -0.464 to 0.0005%), p=0.046. Rapid analogue insulin aspart was superior to human insulin in lowering HbA1c with mean difference of 1.21% vs. 0.43% (p=0.010). Premixed analogue had a similar effect with premixed human insulin in lowering HbA1c. For increasing the number of patients achieving the HbA1c target, long-acting insulin had a small impact than using neutral protamine Hagedorn (NPH). Long-acting insulin caused a significant reduction on the risk of symptomatic (RR 0.623, p=0.046) and nocturnal hypoglycemia (RR 0.683, p=0.001), compared to NPH. The reduction in severe hypoglycemia from long-acting insulin compared with NPH was not statistically significant. There was high variability of prices of human (IDR 17,000 to 415,000) and analogue insulins (IDR 72,000 to 1,000,000) based on countries and types of the drugs.

DISCUSSION AND CONCLUSIONS

Analogue are slightly better than human insulins in reducing HbA1c, but they are significant in reducing the risk of hypoglycemia. In general analogue insulins are more expensive than human insulins.

EE 06 Cost-utility analysis of bortezomib, thalidomide and lenalidomide for relapsed/refractory multiple myeloma treatment

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OBJECTIVE

To conduct a cost- utility analysis of treating relapsed/refractory multiple myeloma)RRMM(patients with bortezomib, thalidomide, and lenalidomide compared to high-dose dexamethasone.

METHODS

A Markov model with a 2-month cycle length was used to simulate lifetime costs and outcomes of bortezomib, thalidomide, and lenalidomide for the treatment of RRMM patients aged 50 years or more .A societal perspective was employed and parameters were retrieved from a systematic review of international and local literature .Future costs and outcomes were discounted at 3 %per annum and results were presented as an incremental cost-effectiveness ratio)ICER(in 2017 THB per quality-adjusted life year)QALY(gained .Parameter uncertainty was analyzed using one- way and probabilistic sensitivity analyses.

RESULTS

Compared to high-dose dexamethasone, bortezomib, thalidomide and lenalidomide yielded ICERs of 9,908,461 THB, 10,706,411 THB and 12,009,328 THB per QALY gained, respectively . Threshold analysis demonstrated that a cost reduction of 94 %and 98 % for thalidomide and lenalidomide, respectively, would be needed for either drug to be cost-effective in the Thai context .For bortezomib, even if its cost is zero, it remains cost- ineffective . The five- year budget of treating patients with bortezomib, thalidomide, lenalidomide, and high-dose dexamethasone were estimated to be 596 million THB, 472million THB, 8 3 6 million THB, and 4 3 7 million THB, respectively.

DISCUSSION AND CONCLUSIONS

Bortezomib provided the lowest ICER although patients incurred the highest costs . Thalidomide produced the next lowest ICER, but there was a one-third chance of having an outcome worse than the comparator . While lenalidomide had the highest ICER, it also yielded the best treatment outcome . Therefore, if all drug costs decline to the suggested values, lenalidomide should be used as the first option for treating RRMM patients due to its greatest outcome.

EE 07 POST-STROKE REHABILITATION COST WITH TRADITIONAL THERAPY: AN EVIDENCE FROM PUBLIC HOSPITAL IN VIETNAM

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OBJECTIVE

Stroke was statistically assessed as the second leading cause of death in the word. For every ten stroke survivors, there were five permanently disabled people. This study was designed to enumerate the cost-of-illness per post-stroke rehabilitation patient for a traditional therapy.

METHODS

A prospective cohort study was carried out in 2017 among patients who ministered to Traditional Hospital in Ho Chi Minh City. The economic burden was evaluated based on direct- and indirect- cost from a societal perspective. The association between demographic characteristics and the cost was contemplated by computing some tests.

RESULTS

Among 103 eligible patients with the age 60.3±11.4, 93.2% (n=96) had a stroke for the first time. 84 patients (81.6%) were diagnosed with ischemic stroke, while the number of hemorrhagic stroke patients was approximately 4.5 times lower. 64 patients had pre-hospitalizing treatment payment with the average between 35.4 and 696.8 USD. The mean total cost was 3,267.1±2,638.1 USD, which included 1,654.4±1,136.3 USD, 615.6±514.5 USD and 997.2±1505.4 USD for direct medical, direct non-medical and indirect cost, respectively. Hospital bed cost accounted for a considerable percentage of direct medical cost (40.9%).

DISCUSSION AND CONCLUSIONS

Post-stroke rehabilitation impacted the economy significantly. The outcomes of this study can give an overview for policy-makers to support for modification treatment cost.

EE 08 Towards the introduction of pneumococcal conjugate vaccines in Bhutan: a cost-utility analysis to determine the optimal policy option

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OBJECTIVE

TO DETERMINE THE COST-UTILITY OF 10- AND 13-VALENT PNEUMOCOCCAL CONJUGATE VACCINES (PCV10 AND PCV13) COMPARED TO NO VACCINATION IN BHUTAN.

METHODS

A MODEL-BASED COST-UTILITY ANALYSIS WAS PERFORMED IN THE BHUTANESE CONTEXT USING A GOVERNMENT PERSPECTIVE. A MARKOV SIMULATION MODEL WITH ONE-YEAR CYCLE LENGTH WAS USED TO ESTIMATE THE COSTS AND OUTCOMES OF THREE OPTIONS: PCV10, PCV13 AND NO PCV PROGRAMMES FOR A LIFETIME HORIZON. A DISCOUNT RATE OF 3% PER ANNUM WAS APPLIED. RESULTS ARE PRESENTED USING AN INCREMENTAL COST-EFFECTIVENESS RATIO (ICER) IN NGULTRUM (NU.) PER QUALITY-ADJUSTED LIFE YEAR (QALY) GAINED (USD 1 = NU. 65). A ONE-WAY SENSITIVITY ANALYSIS AND A PROBABILISTIC SENSITIVITY ANALYSIS WERE CONDUCTED TO ASSESS UNCERTAINTY.

RESULTS

COMPARED TO NO VACCINATION, PCV10 AND PCV13 GAINED 0.0006 AND 0.0007 QALYS WITH ADDITIONAL LIFETIME COSTS OF NU. 1.4 AND NU. 1.7 PER PERSON, RESPECTIVELY. PCV10 AND PCV13 GENERATED ICERS OF NU. 2,347 AND NU. 2,621 PER QALY GAINED COMPARED TO NO VACCINATION. IN ADDITION, PCV13 PRODUCED AN ICER OF NU. 5,656 COMPARED WITH PCV10. WHEN INCLUDING PCV INTO THE EXPANDED PROGRAMME ON IMMUNIZATION, THE TOTAL 5-YEAR BUDGETARY REQUIREMENT IS ANTICIPATED TO INCREASE TO NU. 245 MILLION FOR PCV10 AND NU. 244 MILLION FOR PCV13. MOREOVER, THE FULL-TIME EQUIVALENT (FTE) OF ONE HEALTH ASSISTANT WOULD INCREASE BY 2.0 PER YEAR WHILE THE FTE OF OTHER HEALTH WORKERS CAN BE REDUCED EACH YEAR, PARTICULARLY OF SPECIALIST (0.6 TO 1.1 FTE) AND NURSE (1 TO 1.6 FTE).

DISCUSSION AND CONCLUSIONS

AT THE SUGGESTED THRESHOLD OF 1XGDP PER CAPITA EQUIVALENT TO NU. 176,000 ($2,719), BOTH PCVS ARE COST-EFFECTIVE IN BHUTAN. PCV13 IS MORE PREFERABLE OVER PCV10 UNLESS THE RELATIVE PRICES BETWEEN PCV13 AND PCV 10 CHANGE.

EE 09 Survival rate and Costs In Primary Hepatocellular Carcinoma With Cirrhosis

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OBJECTIVE

Early detection of primary hepatocellular carcinoma (PHC) patients with cirrhosis is critical to enhance PHC patients' survival rates and to save medical costs. The study aimed to generate real world evidence to support the importance for early detection of PHC patients and this evidence will contribute for further the cost effectiveness analysis of the national liver cancer surveillance program.

METHODS

A retrospective analysis was performed on 98,275 PHC patients with cirrhosis in the National Center Cancer Registry from 2005 to 2014 linked to the Korea National Health Insurance claims database. The hazard ratio (HR) of mortality within 5 years and medical costs for the patients were compared by surveillance, epidemiology, and end results (SEER) stage.

RESULTS

There were differences in survival rates and medical costs depending on their characteristics including sex, age at diagnosis, SEER stage and types of initial treatment of cancer. The HR of mortality within 5 years of the PHC patients with distant stage versus local stage was 3.36 with 95% Confidence Interval (95% CI: 3.33 – 3.38) which is higher than those of the patients with regional stage (HR: 1.93, 95% CI: 1.92 – 1.95). The estimated annual medical cost was USD 38,208 with Standard Deviation (SD) 54,399 for localized stage but USD16,345 (SD: 42,377) for distant stage.

DISCUSSION AND CONCLUSIONS

If PLC patients with cirrhosis were detected at early stage, their survival rates would be clinically better with a big saving for medical costs than if they were detected at distant stage. This results itself highlights that importance of the national liver cancer surveillance program. Future studies are indicated to apply these quantitative results into the cost-effectiveness analysis of the Korean national liver cancer surveillance program.

EE 10 Cost-effectiveness of 13-Valent Pneumococcal Conjugate Vaccine in the treatment of Invasive Pneumococcal Disease among Children Under 5 in China

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OBJECTIVE

Invasive Pneumococcal Disease (IPD) is a leading cause of mortality and morbidity in China Under 5 in China, with such complications as otitis, meningitis, and etc. Due to the availability of 13-Valent Pneumococcal Conjugate Vaccinate (PCV13), the incidence of IPD has dropped significantly in Children under 5 in China. Thus, PCV13 is considered the main treatment of IPD world-wide through inhibiting streptococcus pneumonia, specifically for Children Under 5.Routine PCV13immunization is recommended by World Health Organization and has been in the Expended Program on Immunization (EPI) in 176 countries. However, in China, PCV13 currently is costly and not in EPI in China. The aim of this research is to provide evidence on the effectiveness of the vaccination and support policymakers to decide whether or not to include PCV13 in the updated EPI to prevent from streptococcus pneumonia.

METHODS

Through literature review, meta-analysis was applied to collect mortality rate, incident rate, relative risk rate, etc. To assess effectiveness, the Quality Adjusted Life Years (QALYs) were utilized as outcome indicator. A Markov model was constructed to evaluate the cost-effectiveness of different immunization strategies compared to no treatment. One-way sensitivity analysis was performed using the tornado analysis.

RESULTS

The incremental cost effectiveness ratio (ICER) was 78,644 RMB/ QALYs, indicating PCV13 on the treatment of IPD was cost-effective at Willingness To Pay at 40,000 RMB/QALYs. One-way sensitivity analysis revealed that the most influential factor affecting the ICER is the incident rate of IPD.Meanwhile, this study showed for every 1 RMB invested on the treatment ofIPD by the government will yield a benefit of 0.81 RMB. Finally, if PCV13 is included in the Chinese EPI, the increase of budget on public health investment by government would range from 25 million to 35 billion RMB.

DISCUSSION AND CONCLUSIONS

There are two recommendations on PCV13 treatment. First, decrease in the price of PCV13 would significantly yield higher return on public investment, especially below the cut-off point of 800 RMB. Second, partial inclusion of PCV13 into EPI would significantly lessen the financial burden of those households with Children suffering from IPD under 5 in China.

EE 11 Cost analysis of stigmatization and discrimination reduction package in health care settings

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OBJECTIVE

In Thailand, one of the goals of 2017-2030 national AIDS strategy is to reduce HIV and gender-related discrimination against people living with HIV (PLHIV). However, 13 percent of PLHIV have been avoided or delayed health care because of fear of stigma and discrimination (S&D). The Bureau of AIDS TB and STI (BATS), Ministry of Public Health, Thailand has developed S&D reduction package in healthcare settings. This package has been implemented in six hospitals in three provinces. The implementation of the S&D reduction package in the demonstration sites had a favorable outcome with significant reduction in fear of HIV and stigmatizing attitudes toward PLHIV. This study aims to measure the unit and programme costs of the S&D reduction package and provide policy recommendations for health system-wide scale-up.

METHODS

The study was a retrospective survey research based on provider perspective. The data was collected from three hospitals, provincial health office, BATS and civil society organization staff that are involved in this programme. Research tool including labor costs and material costs. The costs were grouped based on activities and divided into economic cost and financial cost. Estimated costs of each activities was converted to the local currency unit values, for base-year 2017 using the consumer price index (CPI).

RESULTS

The total cost of the S&D reduction programme was found to be THB 2,759,386. The study findings showed that total cost of preparation was THB 1,197,602, total cost of implementation was THB 1,174,014 and the total cost of summary of implementation was THB 387,771 . Additionally, unit cost of training in the S&D reduction programme was THB 8,543.

DISCUSSION AND CONCLUSIONS

This study determined the cost of the S&D reduction package programme and the findings can be used for budget management for national rollout for this programme in the healthcare settings. Additionally, the results of the study will serve as an important data for economic evaluation and cost-effectiveness analysis in the future.

EE 12 Cost-Effectiveness of Dengue Vaccine introduction in Dhaka City, Bangladesh

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OBJECTIVE

Dengue infection is one of the major public health threats in Bangladesh, especially in the capital city Dhaka. Recently dengue vaccine was launched in the market to prevent this infection. This study aimed to evaluate cost-effectiveness and to analyze financial feasibility for introducing dengue vaccination in Dhaka city, Bangladesh.

METHODS

We conducted a cost-effectiveness analysis using Markov model from the government perspective. The model was limited to second infection and compared dengue vaccination with no vaccination during20-yeartime horizon. Cost, epidemiological and vaccine parameters were obtained from published literatures. We measured utility by converting disability adjusted life years (DALYs) weight into quality adjusted life years (QALY). The cost and outcomes values were adjusted using 3% discount rate. One-way, threshold, and probabilistic sensitivity analyses were employed to observe model uncertainty. Budget impact analysis was performed based on the governmental perspective for 5 years to introduce the vaccine for 10-14years age group

RESULTS

The incremental QALY gain is 464,014 and incremental cost of dengue vaccination is USD 45.18 million. The incremental cost-effectiveness ratio (ICER)values of dengue vaccine introduction in Dhaka city wereUSD97.4/QALY and USD98.2/QALY in deterministic and probabilistic approaches, respectively. The total budget for introducing vaccination in the Dhaka city among the target group was 82.84 million USD for 5 years. Vaccine coverage was the most sensitive parameter to have an impact on the ICER. Probability of vaccination was 90% cost-effective at the willingness to pay of USD300.

DISCUSSION AND CONCLUSIONS

We found dengue vaccination was cost-effective and ICER is0.06 GDP of Bangladesh. However, the budget impact was relatively high, as it was about 2% of total budget for spending on health in Bangladesh. The government could introduce dengue vaccination in their routine schedule if the total financial resources for vaccination could be arranged.

EE 13 Predicting the cost neutral price for vaccines in Lower Middle Income Countries: A case study of cost neutral pricing of dengue vaccine in Sri Lanka.

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OBJECTIVE

The lack of routine application of economic evaluations has led to neglecting of the cost effectiveness criteria in the local setting while losing the opportunity to negotiate price with the industry in low income countries. This study will set an example on predicting a cost neutral price of a new vaccine, taking Dengue Vaccination into example. Using a cost neutral pricing strategy may be greatly beneficial in advocating health policymakers in their decisions to mobilise financial resources for new vaccines.

METHODS

Using published data on health system resource use, preventive costs and vaccine effectiveness, a decision analytic Markov model was developed to compare the cost- effectiveness of a predicted vaccination strategy over a time horizon of 10 years. The cost effectiveness of dengue vaccination strategy was estimated in terms of costs per life saved and cost per additional QALY saved (ICER) using the effectiveness of currently marketed vaccine Denvaxia in other settings. Using a series of willingness to pay values, an acceptable range for the price of the vaccine was determined, including the cost neutral price (Pn). Probabilistic sensitivity analysis was performed around model input parameters with a considerable uncertainty. The Model was calibrated using average life expectancy (LE) at birth of Sri Lanka as a calibration target. Outputs were filtered using a cut off LE ± 2% to improve the accuracy of the predictions in Sri Lankan setting. District specific and age specific ICER values and Pn values were estimated to identify the most appropriate target populations for a future vaccination program.

RESULTS

The cost neutral price of vaccination per individual was estimated to be LKR 4743 (USD 31) in the district of Colombo where the vaccine was most cost effective. The ICER for the same strategy in Colombo District at vaccination price of USD 53 was 203337 LKR/QALY (1329 USD/QALY). The model outputs were sensitive to vaccine effectiveness, seroprevalence, dengue incidence and the transition probabilities. The annual cost of vaccination of one birth cohort at cost neutral price will be LKR million 1660 (USD million 10.85) with a budget impact of 1% of total annual health expenditure of Sri Lanka. The vaccination strategy was found to be most cost effective in Colombo and Gampaha districts, and least cost effective in Nuwara Eliya district.

DISCUSSION AND CONCLUSIONS

Predicting the cost neutral range of price for vaccines will assist in mobilising resources from the government for cost effective vaccines. The vaccination strategy needs to be initiated in the districts where it is most cost effective. In these districts the vaccine will be cost saving, if the cost per individual is below the Pn. This model could be simply modified to predict the district specific cost effectiveness of any dengue vaccine awaiting introduction in Sri Lanka.

EE 14 The Willingness To Pay (WTP) for a Hypothetical Dengue Vaccine in Penang, Malaysia

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OBJECTIVE

Malaysia is experiencing an escalation of dengue cases for the past 5 years. As the dengue vaccine pipeline continues to develop steadily with strong public interests, this study seeks to elicit the acceptance and the willingness-to-pay for a hypothetical dengue vaccine in Malaysia.

METHODS

This study was conducted using a cross-sectional and contingent valuation method. A total of 400 respondents 18-year-olds and above who reside in Penang were interviewed face-to-face to evaluate their acceptance and WTP for 2 hypothetical 3-doses dengue vaccines (A with 5 years' protection and B with 10 years' protection). The double-bounded dichotomous-choice via a bidding game approach was employed in eliciting the WTP amount. A logistic regression model was applied to assess the key determinants of vaccine's acceptance whereas the parametric mean WTP amount and factors affecting the WTP was measured by two-part model (TPM).

RESULTS

Results showed that 88.4% of the respondents would vaccinate themselves if the vaccine were provided free. Respondents with higher dengue knowledge and vaccination attitude were more likely to accept dengue vaccine. The first step logit estimation from TPM showed that respondents with higher education level or accepted the free vaccine were more likely to pay for the vaccine. The adjusted mean WTP for the vaccine was MYR 43.93 (US$10.59) per dose. The second-stage regression from TPM found that key factors that affected the WTP value were age, gender, occupation, household income, and household dengue prevention practice.

DISCUSSION AND CONCLUSIONS

The strong acceptance towards the dengue vaccine indicates the high value of the vaccine in Malaysia. The WTP estimates provides quantification of the private benefit of disease reduction. Although the findings in this study still deserved further investigation, the people's preferences-based WTP value for the vaccine would complement the scientific decision making and prioritization in the management of dengue for the country.

EE 15 An economic evaluation of tocilizumab use in the treatment of systemic juvenile idiopathic arthritis

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OBJECTIVE

To analyze the cost-utility and budget impact of adding tocilizumab)TCZ (to the current standard treatment)cSTD (for patients with refractory systemic juvenile idiopathic arthritis)SJIA (in Thailand.

METHODS

The cSTD consists of systemic corticosteroids, nonsteroidal anti-inflammatory drugs)NSAIDs (and disease- modifying antirheumatic drugs)DMARDs .(In this study, cSTD plus TCZ was compared to cSTD alone .The cost-utility analysis was performed from a societal perspective . A Markov stimulation model was used to estimate the correlation between costs and health outcomes for a lifetime horizon, with three months cycle length .Costs were collected from a hospital database and were adjusted to the year 2015 . Health outcomes of SJIA patients were measured using the proxy version of EQ-5D-3L because SJIA occurs during childhood, and quality-adjusted life years) QALYs (were estimated .Both costs and outcomes were discounted at 3 %per year . The results were reported as incremental cost-effectiveness ratios)ICERs . (One-way and probabilistic sensitivity analysis were conducted to investigate parameter uncertainty . The budget impact was estimated for the first 5 years from a government perspective.

RESULTS

The ICER of cSTD plus TCZ was 163,862 baht per QALY gained, compared with STD alone .Therefore, it was not cost-effective at a threshold of 160,000 THB/QALY gained) US$4,904 .(The probability of cost-effectiveness for cSTD plus TCZ was 45 %at the threshold .The one-way sensitivity analysis showed that the model was sensitive to number of hospital visits and utility score . The estimated 5-year budget impact was 48 million baht (US$1,471,200).

DISCUSSION AND CONCLUSIONS

The cSTD plus TCZ use in refractory-SJIA was not cost-effectiveness .The base case of this study was patients who developed refractory- SJIA at the mean age of 7 . However, the older patient trends to receive a greater dose of TCZ leading to higher cost of TCZ, ICER and budget impact.

EE 16 The cost-effectiveness analysis of rotavirus vaccine in low- and low-middle income countries: a systematic review and meta-analysis

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OBJECTIVE

Rotavirus caused morbidity and mortality in children particularly in low and low-middle income countries (L&LMICs).This systematic review and meta-analysis was conducted to assess cost-effectiveness of rotavirus vaccine (RV) in L&LMICs.

METHODS

Relevant studies were identified from PubMed and Scopus since inception to June 2017. Studies were eligible if they assessed cost-effectiveness of rotavirus vaccine in children, conducted in L&LMICs, and reported incremental cost-effectiveness (ICER). Risk of bias and quality assessment was assessed based on Consolidated Health Economic Evaluation Reporting Standard (CHEERS) checklist. Incremental net benefit (INB) and its variance were estimated for each study. Monte Carlo simulation was used to estimate 95% confidence interval of difference in effectiveness (Δ E) if variance of Δ E was unavailable. A meta-analysis with DerSimonian and Laid method was then applied to pool INB across studies.

RESULTS

A total of 418 studies were identified but 11 studies were eligible. All studies conducted cost-utility analysis and published between 2007 and2016. Among them, 8and 3 studies were conducted in L and LMIC, respectively. Ten and one studies used 2 (Rotarix) and 3 dosages (Rotateq) RV, respectively. Vaccine coverage and efficacy ranged from 47% to 98% and 48.3% to 93%, respectively. The estimated ICERs ranged from 5.3 to 650 USD/DALY with the per capita gross domestic product (GDP) varied from 112to3,800 USD. The pooled INB estimated at$3x10^7$ (95% CI: $2x10^7$, $4x10^7$) with highly significant heterogeneity (Chi-squared = 285.56, df = 10, $p<0.001$; I^2 =96.5%). This could be interpreted that the RV is cost effective in L&LMICs when the WTP/threshold is 1 GDP.

DISCUSSION AND CONCLUSIONS

RV is cost-effective to introduce in L&LMICs. This evidence will aid decision makers to better understand the added value and provide evidence for introduction of rotavirus vaccination.

EE 17 Cost-utility analysis of pemetrexed plus platinum-based regimen for malignant pleural mesothelioma treatment

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OBJECTIVE

Pemetrexed is a novel agent which is not yet included in the Thailand National List of Essential Medicines because its cost- effectiveness had not been established . To provide evidence on this topic, this study aims to assess the cost- utility of pemetrexed plus platinum- based regimens for the treatment of malignant pleural mesothelioma)MPM(patients.

METHODS

A model- based cost- utility analysis was conducted . The regimens of pemetrexed+ cisplatin and pemetrexed+ carboplatin were compared with the current practice of using gemcitabine+ cisplatin . A societal perspective and life- time horizon were applied . Variables used in the Markov model were derived from local and international literature, medical records, and expert opinion .We. conducted both one- way and probabilistic sensitivity analyses to assess parameter uncertainty

RESULTS

Results show that both pemetrexed+ cisplatin and pemetrexed+ carboplatin have incremental cost effectiveness ratios)ICERs(of 1,514,638 and 698,923 THB per quality-adjusted life-year) QALY(gained which are not cost- effective in Thai context given a cost-effectiveness threshold of 160,000 THB per QALY gained . Pemetrexed+ cisplatin would become cost-effective if the price of pemetrexed is reduced around 99 . % The pemetrexed+ carboplatin regimen is not found to be cost- effective even if the price of pemetrexed is reduced to zero . Impact on the government' s budget for treating MPM patients with pemetrexed+ cisplatin and pemetrexed+ carboplatin is estimated to be 32 million THB and 39 million THB, respectively

DISCUSSION AND CONCLUSIONS

The use of either pemetrexed+ cisplatin or pemetrexed+ carboplatin as the first- line treatment of MPM in Thailand is not cost-effective compared to gemcitabine+cisplatin .For the pemetrexed+ carboplatin regimen even if pemetrexed is zero priced, this regimen remains a cost-ineffective intervention possibly due to the huge cost of best supportive care) palliative care(and this regimen produced longer life- year . However, if we consider in ethical issue, pemetrexed+ cisplatin should be used as the primary option for treating Thai MPM patients because MPM is rare disease and caused from occupation.

EE 18 Cost-effectiveness analysis of mass media campaign of alcohol consumption control (No Alcohol during Buddhist Lent) in Thailand

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Health Intervention and Technology Assessment Program (HITAP), Thailand

OBJECTIVE

To evaluate the cost- effectiveness of " No alcohol during Buddhist Lent", a campaign aiming to encourage drinkers to stop drinking during the Buddhist Lent)a 3-month period from July to September (in Thailand.

METHODS

A cohort Markov model was used to simulate multiple conditions including hospitalization and death of an alcohol use disorder assessed by Alcohol Use Disorder Identification Test classified by gender . Mass media campaign)MMC (only was compared with MMC plus community-based campaigns .Direct medical and non-medical care costs, and intervention cost were evaluated from a societal perspective and adjusted to the year 2016. Health care costs were derived from health administrative database of National Health Security Scheme, and intervention cost was collected from organizations responsible for running the campaigns . Intervention effectiveness was derived from a study in four provinces of Thailand . Health outcome was quality- adjusted life year)QALY .(Costs and outcomes were discounted at 3 %per year . Incremental cost- effectiveness ratio) ICER (was calculated . Probabilistic sensitivity analysis was conducted and presented by cost- effectiveness plane and cost-effectiveness acceptability curve.

RESULTS

At a societal willingness- to- pay threshold in Thailand)160,000 THB per QALY gained(, compared with MMC alone, MMC plus community-based campaign were cost-effective at both male and female, with an ICER up to 13,476.37 THB per QALY gained in male and 17,701.70 THB per QALY gained in female .The probability of MMC plus community-based campaigns being cost-effective was greater than 99 %in male and 90 % in female in all subgroup based analysis on alcohol use disorder measured by AUDIT i. e. hazardous, harmful, and probable dependent drinking.

DISCUSSION AND CONCLUSIONS

MMC plus community-based campaigns compared to MMC alone was cost-effective. However, further research evaluating related costs and outcomes from a societal perspective is required.

EE 19 Economic evaluation of terlipressin plus albumin for hepatorenal syndrome type I in Thailand

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OBJECTIVE

The National list of Essential Medicines(NLEM) has requested the cost-effectiveness information in order to make decision whether teripressin should be included for hepatorenal syndrome (HRS) type I patients in Thailand. Thus, this study aimed to evaluate the cost- utility of terlipressin plus albumin compared with noradrenaline plus albumin for patients with HRS type I and to estimate the budget impact if included teripressin in the NLEM.

METHODS

A cost-utility analysis using Markov model was applied to compare lifetime costs and health outcomes of teripressin plus albumin or noradrenaline plus albumin with best supportive care in HRS type I patients based on a societal perspective. Costs and clinical effectiveness data were obtained from published literatures. Both costs and outcomes were adjusted using the discount rate of 3%.The results were presented as the incremental cost-effectiveness ratio (ICER). One-way and probabilistic sensitivity analyses were performed .Budget impact analysis for five years was calculated.

RESULTS

Providing best supportive care yielded a total lifetime cost of 320,000 Baht and a total QALY of 0.367, while the use of terlipressin plus albumin yieldeda totallifetime costof 449,000 Baht,a total QALY of 0.539. The ICER ofterlipressin plus albumin was 751,000 Baht/ QALY gained. In addition, the use of noradrenaline plus albumin yielded a total lifetime cost of 442,000 Baht, a total QALY of 0.562 and the ICER of 627,000 Baht/QALY gained Furthermore., it was estimated that there were 110 HRS type I patients in Thailand with the accessibility rate of 50%, the annual budget of 16.65 and15.34 million-Baht for terlipressin and noradrenaline plus albumin would be required, respectively.

DISCUSSION AND CONCLUSIONS

At the willingness to pay threshold of 160,000 Baht/QALY gained in Thailand, both terlipressin and noradrenaline plus albumin would not cost-effective. Despite of the cost-ineffective results, the annual budget might be feasible.

EE 20 Economic Evaluation of Clinical Pathways Management for Cerebral Infarction in China

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OBJECTIVE

The stroke, along with its major subtype-cerebral infarction (CI), put clinical and economical burdens on the health system of China. The development of evidence-based clinical pathways (CP) has been prioritized as a realistic solution by Chinese health stakeholders, to contain medical costs while improving care quality in accordance with the lessons learned from health sector reforms of other countries. This study aims to validate whether the CP intervention is cost-effectiveness in China.

METHODS

The study performed a cost-effectiveness analysis using a Markov model based on the literature review and pilot site data observed. The base case assumed to be a cohort of 2219 CI inpatient patient, all over the age of 60-year-old, who were assigned into either CP group or Non-CP group according to the inclusion and exclusion criteria and clinician judgment. The model used a healthcare system perspective and a time horizon of 10 years. The relative risk of stroke-related deaths under the CP intervention was applied as a triggering factor to measure the difference caused by such intervention. Outcome measures were costs of health states, quality-adjusted life years (QALY) and incremental cost-effectiveness ratio (ICER). The analysis was performed using Treeage Pro 2017.

RESULTS

CP strategy is the cost-effectiveness option compared with conventional care, and far lower than the cost-effectiveness threshold of 162000 RMB. In base case analysis, the ICER value of CP strategy is 13317.91 RMB per QALY compared with conventional care. The one-way sensitivity analysis in terms of relative risk of stroke-related death did not change the dominant status of CP strategy. According to the Tornado diagram, the relative risk value of stroke-related death, the starting age of patients, and the cost of health state of home are the top three contributing factors that lead to drastic changes in the model structure.

DISCUSSION AND CONCLUSIONS

Given certain assumptions, CP intervention is a cost-effectiveness strategy that can be used to aid policy making decisions.

EE 21 Cost-utility analysis of shorter regimen for multi-drug resistant tuberculosis (MDR-TB) in Vietnam

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OBJECTIVE

Vietnam is one of twenty countries with high disease burden for tuberculosis (TB), especially multidrug resistant tuberculosis (MDR-TB). Currently the World Health Organization has recommended that the shorter regimen (9 months) should be provided to MDR-TB patients instead of the conventional regimen (20 months) in order to reduce treatment duration and costs. However, there has been no cost-effectiveness evidence related to shorter regimen to support for policy decision making in Vietnam. Therefore, this study aimed to conduct the cost-utility analysis of the shorter regimen compared with conventional regimen for MDR-TB patients in Vietnam.

METHODS

The cost-utility analysis was used to compare lifetime costs and outcomes of the shorter regimen and conventional regimen for MDR-TB patients in Vietnam based on the governmental perspective using a decision tree and Markov models. Cost and utility data were collected from MDR-TB patients in Vietnam. Efficacy and probability data were obtained from published literatures. Lifetime costs and outcomes were adjusted to US dollar values in 2017 using a discount rate of 3%. The results were reported as the incremental cost-effectiveness ratio (ICER) in USD per QALY gained. One-way and probabilistic sensitivity analyses were applied to investigate the effects of model parameter uncertainties.

RESULTS

The results showed that the ICER values of providing the shorter regimen compared with the conventional regimen for MDR-TB patients in Vietnam was $1,011 per QALY or $911 per life year gained. However, based on one-way sensitivity analysis, direct medical cost (i.e., costs of drugs and materials as well as testing) and probability of treatment success would be the most sensitive to the ICER values. At the willingness to pay of one gross domestic product per capita per QALY gained ($US 2,214), the probability being cost-effective of the shorter regimen was 100%.

DISCUSSION AND CONCLUSIONS

The results suggested that the shorter regimen would be cost-effective compared with the conventional regimen. The results of this study would be a useful information to support the policy decision making on the use of shorter regimen for MDR-TB patients in Vietnam.

EE 22 Cost-effectiveness of cervical cytologyand HPV DNA testingfor cervical cancer screening in Eastern China

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OBJECTIVE

This study aims to evaluate the cost effectiveness of general screening strategies from government perspectives and provide decision-making reference for the implementation of cervical cancer screening strategies.

METHODS

A decision tree model was used to estimate the cost effectiveness of the various screening strategies. Decision tree models, operated by using data based on the literature review, expert interview and local investigation, are used to represent the sequence of chance events and decisions that occur during 5 years. We estimated the cost-effectiveness of three screening strategies (Pap smear every three years; TCT testing every three years and HPV DNA testing every five years) for women above 30 years-old, and screening efficacy, coverage, cost, and screening regular review rate were varied in sensitivity analyses.

RESULTS

Compared with no screening, the cost to exactly diagnose one histopathology positive case of Pap smear every three years, TCT testing every three years and HPV DNA testing every five years was 5.32 million yuan,7.70million yuan and 4.01 million yuan respectively. The CE ratios of these strategies to dectect one positive cases was 2485 yuan,8844 yuan and 1415 yuan and the average cost of a single screening was 36.35 yuan,101.60 yuan and 154.70 yuan. Thus when considered from the accuracy and cost-effectiveness, HPV DNA testing every five years would be recommended at current price. According to the one-way sensitivity analysis, the cost of the screening test had a great effect on the cost-effectiveness results.

DISCUSSION AND CONCLUSIONS

This CEA indicates that HPV DNA testing could be a cost-effective screening alternative for large-scale organized screening.

EE 23 Economic evaluation of cholinesterase Inhibitors for Alzheimer's disease treatment in Thailand

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OBJECTIVE

Demetia is common in elderly, especially Alzheimer's disease (AD) Cholinesterase inhibitors (ChIEs) *could* affect to delay disease progressions in AD patients .ChIEs has not yet been included in the National list of Essential Medicines (NLEM) in Thailand . The objective of this study was to evaluate the cost-utility of ChIEs drugs compared with supportive care in patients with mild to moderate AD.

METHODS

Markov model was used to estimate relevant costs and health outcomes using a lifetime horizon from the societal perspective of Thai healthcare system. Direct medical and non-medical costs were included. Input parameters were obtained from Literature review and collected from a university hospital. Health outcomes were life years (Lys)and quality adjusted life years (QALYs) . The results were presented as the incremental cost effectiveness ratio (ICER)in Thai baht per LY or QALY gained . One-way sensitivity and probabilistic sensitivity analyses were performed to investigate effects of model variable uncertainties on the results.

RESULTS

The ICER value of generic donepezil treatment in mild to moderate AD patients with extrapyramidal symptom (EPS)was dominant (56,000-Baht/QALY gained) compared with supportive care. In addition, the ICER value of generic donepezil treatment in mild to moderate AD patients with extrapyramidal symptom (EPS) was 82,000 Baht/QALY gained in mild to moderate AD patients with psychiatric symptom. However, the ICER of generic donepezil treatment in patients with mild to moderate AD without EPS or psychiatric symptoms was 280,000Baht/ QALY gained.

DISCUSSION AND CONCLUSIONS

Based on the willingness to pay (WTP)threshold in Thailand i.e., 160,000 Baht/QALY gained), the generic donepezil treatment was the most cost-effective in mild to moderate AD with EPS or psychiatric symptoms in Thailand .*The benefit of generic donepezil could* affect to delay time to severe AD and healthcare expenditures.

EE 24 Oncologists' preference for treatment for non-small cell lung cancer: an empirical study of discrete choice experiments

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OBJECTIVE

Although efficacy, tolerability, and cost are classical criteria for choosing treatment for non-small cell lung cancer (NSCLC), patient adherence and tariff issues related to novel oral anticancer drugs may also influence therapeutic decisions.

This study aims to estimate the relative importance of efficacy, tolerability, mode of administration, and cost of a NSCLC chemotherapy on the preferences of Chinese physicians through a Discrete Choice Experiment (DCE).

METHODS

The DEC instrument was developed based on literature review and consultation with clinical experts. We identified six treatment attributes to describe the NSCLC treatment alternatives in this study, i.e., time without tumor progression, disease control rate, risk of moderate side effects, risk of severe side effects, treatment cost, and mode of administration. The choice profiles were determined by a main-effects D-efficient experimental design in SAS, and 16 DCE scenarios were selected for each doctor. Face to face DCE survey was conducted among 50 NSCLC oncologists in Beijing, China. Random-parameters logit model was used to evaluate the preference weight (PW) as well as the relative importance (RI) of treatment attributes.

RESULTS

50 oncologists completed the DCE survey. The PW and RI for each attribute were as follows: time without tumor progression (PW=1.91, RI=60.4%); disease control rate (PW=0.69, RI=21.9%); mode of administration (PW=0.20, RI=6.2%); risk of severe side effects (PW=0.19, RI=6.0%); treatment cost (PW=0.14, RI=4.4%); and risk of moderate side effects (PW=0.03, RI=1.0%). The results varied significantly by length of practice of the oncologist.

DISCUSSION AND CONCLUSIONS

The results suggest that time without tumor progression and disease control rate were the primary attributes that were taken into consideration by oncologists. These two attributes comprised over 80% of the total RI. Mode of administration was rated as the third most important attribute, preceding side effects and treatment cost.

EE 25 Cost-effectiveness analysis of bilateral cochlear implants in children with severe-to-profound sensorineural hearing loss in both ears

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OBJECTIVE

This study aims to evaluate the cost-effectiveness of simultaneous and sequential bilateral cochlear implants (BCI) compared to unilateral cochlear implant with hearing aid (UCI-HA) in children with severe- to- profound sensorineural hearing loss in both ears.

METHODS

A cost-utility analysis was conducted using a four-state Markov model based on published utility data, and local experts ' inputs on resource utilisation from the Singapore healthcare payer perspective . All-cause mortality, and clinical- and device-related events arising from major complications and device failures were modelled . To model device replacement, manufacturers' cochlear implant (CI) reliability data were used to generate weighted survival curves and then extrapolated for the model' s time horizon .Using annual cycles with half-cycle correction (applied to quality-adjusted life year (QALY) gained), the model was simulated from a starting age of 1 year old to 80 years old .A 3 %annual discount rate was applied to costs and outcomes . Deterministic one- way and probabilistic sensitivity analyses were performed

RESULTS

Base- case analyses showed that at current selling prices, compared with UCI-HA, the incremental cost-effectiveness ratios (ICERs) of simultaneous BCI and sequential BCI were SG$79K and SG$89K per QALY gained respectively . One- way sensitivity analyses showed that the ICERs were most sensitive to the CI device price and incremental utility gain. While simultaneous BCI was cost-effective 50 %of the time at a willingness-to-pay (WTP) threshold of SG$81K per QALY gained, sequential BCI remained dominated by simultaneous BCI when WTP was varied from SG$0 to SG$100K per QALY gained.

DISCUSSION AND CONCLUSIONS

At current selling prices, both simultaneous BCI and sequential BCI are unlikely to be cost-effective compared with UCI-HA in Singapore .To improve their cost- effectiveness, value- based pricing negotiations with the manufacturers are warranted.

EE 26 Patients' preference for treatment of non-small cell lung cancer: an empirical study discrete choice experiments (DCEs) in China

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OBJECTIVE

The aim of this empirical study is to evaluate patients' preference in relation to treatmentof non-small cell lung cancer (NSCLC) in China using a discrete choice experiment (DCE).

METHODS

Face to face DCE instrument was developed by the research team, and the survey was carried out involving 148 NSCLC patients in August 2017 in one city. The following attributes were used to describe hypothetical choice sets:H 1) time without tumorprogression, 2) disease control rate, 3) side effect of skin 4) nausea and vomiting, 5) fatigue and tiredness, 6) treatment cost and 7) mode of administration. The combination of attribute levels included in each NSCLC treatment profile was determined by a main-effects D-efficient experimental design and the experimental design resulted in 18 choice questions. Random-parameters logit model was used toevaluate the preference weight (PW) and relative importance (RI) of treatment attributes.

RESULTS

The most important attributes for patient were time without tumorprogression (PW=1.04, RI=47.8%), followed by disease control rate (PW=0.40, RI=18.3%), fatigue and tiredness (PW=0.27, RI=12.4%), mode of administration (PW=0.20, RI=9.2%), side effect of skin (PW=0.16, RI=7.4%), nausea and vomiting (PW=0.11, RI=5.0%).

DISCUSSION AND CONCLUSIONS

The results suggest that effectiveness was most important attributes for patients. In addition, side effects and mode of administration had significant influence on patients' treatment preference.The survey results can be used in designing, assessment, and decision in NSCLC treatment regimes, in order to provide more effective and efficientcare of patients, thereby increasing adherence.

EE 27 Cost-utility analysis of vagus nerve stimulation(VNS) for children with intractable epilepsy in Taiwan

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OBJECTIVE

This study aimed to evaluate the cost-utility of vagus nerve stimulation(VNS) for children with intractable epilepsy in Taiwan.

METHODS

Incremental cost-effectiveness ratio (ICER) was calculated using the net costs from a program of implantation sufficiently large to benefit at least one person, divided by the net gain in quality adjusted life years. Intractable epilepsy patients younger than 12 years of age were selected since they are more sensitive with VNS. There was no other active comparator under Taiwanese National Health Insurance (NHI). Local clinical research studies showed that, for every four people implanted and stimulated with device that there would be at least one person with a 50% or greater reduction in seizure frequency. The claims data of a random sample of epilepsy patients from the National Health Insurance (NHI) database was used to estimate the treatment cost of epilepsy in Taiwan. Out-of-pocket prices of VNS devices obtained from official website of each hospital were used. Time horizon was assumed 6 years since it is how long the battery life of VNS. Other medical services costs of VNS were also obtained from the hospitals.

RESULTS

The ICER of VNS versus no active treatment was estimated to be 2,236,471/QALY, about 3-times GDP per capita of Taiwan. Sensitivity analysis results showed that the ICER decreases with greater proportion of patients achieving a ≧50% reduction in seizure frequency (ICER=807,000/QALY), lower price of medical device(ICER=858,000/QALY), or longer battery life (ICER=1,584,000/QALY).

DISCUSSION AND CONCLUSIONS

Previous study showed the VNS is a safety, tolerable adjunctive therapy. Our result suggested that the ICER of VNS therapy in patients with refractory epilepsy in Taiwan NHI is somewhat high, although the local studies had shown promising effectiveness of the therapy.

EE 28 Valuation of EQ-5D-5L for the Malaysian population

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OBJECTIVE

The lack of a general population based preference-based value set is impeding cost-utility research in Malaysia. Therefore, the primary purpose of this research is to estimate the value set of the EQ-5D-5L health states in the Malaysia population.

METHODS

Respondents were sampled in proportion to quotas of urbanicity, gender, age, and ethnicity ratios to ensure representativeness of the Malaysian population. Malaysians aged 18 who were able to understand English or Malay were recruited for the study. Face-to-face interviews using the computer-assisted EuroQol Valuation Technology (EQ-VT) were carried out by 18 trained interviewers. The valuation task applied the EQ-5D-5L health states in asking 10 time-trade off (TTO) and 7 discrete choice experiment (DCE) to all consenting respondents. Both additive and multiplicative regression models of TTO-only data and hybrid models combining TTO and DCE data were explored to determine an efficient and informative model for value set prediction.

RESULTS

1137 respondents, representative of the Malaysian population completed the interviews, and data from 12 respondents were excluded based on predefined criteria. Logical consistency was present in all models tested. The 8-parameter TTO-only and hybrid multiplicative regression models performed better than their additive modelling counterparts. Additionally, the simplicity of the multiplicative models made them attractive choices to represent the value set. However, in deciding between the multiplicative TTO-only and hybrid models, the 8-parameter hybrid model's ability to incorporate data patterns from both TTO and DCE valuation techniques was chosen to estimate the final value set.

DISCUSSION AND CONCLUSIONS

The 8-parameter hybrid model was demonstrated to have good potential in representing the Malaysian value set. The presence of the Malaysian EQ-5D-5L value set will facilitate the healthcare research, especially in the Malaysian health technology assessment scene.

10 May 2018			
9:00-9:20	**EE 29**	Self-labelled Iodine-131-Rituximab Radioimmunotherapy for Non-Hodgkin's Lymphoma: A Systematic Review	Malaysia
9:00-9:20	**EE 30**	Comparison of surgical resection and radiofrequency ablation for the patients with small primary hepatic carcinoma in China	China
9:20-9:40	**EE 31**	Adjuvant trastuzumab regimen for human epidermal growth factor receptor 2 (HER2) positive early breast cancer (EBC): A systematic review and meta-analysis	Philippines
9:20-9:40	**EE 32**	Clinical Hypnoyherapy for Pain Management, Anxiety, Depression and Addiction	Malaysia
9:40-10:00	**EE 33**	Efficacy of Bortezomib, Thalidomide and Lenalidomide for Relapsed/Refractory Multiple Myeloma Treatment: A systematic review and meta-analysis	Thailand
9:40-10:00	**EE 34**	Microinvasive Glaucoma Surgery (MIGS) using iStent: A systematic review and meta-analysis	Malaysia
10:00-10:20	**EE 35**	Antibiotic Prophylaxis of Catheter-Associated Urinary Tract Infections: Systematic Review and Network Meta-Analysis	Indonesia
10:00-10:20	**EE 36**	Systematic Review of Triage System for Managing Overcrowding Emergency Department: A Meta-Analysis	Malaysia
11:00-11:20	**EE 37**	Effectiveness of Physical Rehabilitation in Advanced Cancer Patients	Korea
11:00-11:20	**EE 38**	Adverse Effect of Unhealthy Food and Beverages Marketing to Children: A Systematic Review	Malaysia
11:20-11:40	**EE 39**	Effectiveness of salt reduction intervention for large-scale population: Systematic reviews and meta-analysis	Thailand
11:20-11:40	**EE 40**	Effect of sFlt/PIGF ratioon the prediction of pre-eclampsia: A systematic review and meta-analysis	China
11:40-12:00	**EE 41**	The Effectiveness of Hospital-based Clinical Pathways for Acute Stroke Management: a Systematic Review	China

ECONOMIC EVALUATION ABSTRACTS
THURSDAY, MAY 10 2018

MODERATOR

- Dr. Wanrudee Isaranuwatchai
- Mr. Kwong Hoe Ng
- Dr.Asrul Akmal Shafie
- Asst.Prof. Dr. Montarat Thavorncharoensap

COMMENTATOR

- Mr. Kwong Hoe Ng
- Prof. Olivia Wu
- Dr.Varalak Srinonprasert
- Dr. Jasmine Pwu
- Dr.Anthony Kinghorn
- Asst.Prof.Unchalee Permsuwan
- Dr.Sathira Perera
- Prof. Kanchan Mukherjee
- Dr. Peter Coyte

EE 29 Self-labelled Iodine-131-Rituximab Radioimmunotherapy for Non-Hodgkin's Lymphoma. A Systematic Review

Balqis Abdul Ghani, Dr Junainah Sabirin Health Technology Assessment Section, Medical Development Division, Ministry of Health, Putrajaya, Malaysia

OBJECTIVE

To assess the safety, effectiveness, cost-effectiveness of self- labelled I- 131- rituximab radioimmunotherapy (RIT) in patients with non-hodgkin lymhpoma (NHL).

METHODS

Relevant trials published until November 2016 was identified through several databases including the Ovid MEDLINE, PubMed, Embase and online publishing site. Studies were selected based on inclusion and exclusion criteria and critically appraised using Critical Appraisal Skills Programme (CASP) and graded according to US/ Canadian preventive services task force.

RESULTS

Out of 323 titles identified, fourteen articles were included in this review consisting of two cohort studies and twelve clinical trials.

Effectiveness

There was limited fair level of retrievable evidence to suggest that I-131-rituximab RIT was effective as a first line treatment for NHL. It was effective for newly diagnosed, advanced stage, symptomatic follicular NHL with 99% overall response rate (ORR) at three months. It was also effective for treatment of relapsed or refractory NHL. The ORR range from 29% to 97%, complete response range from 12.5% to 77% and median overall survivor range from 11.3 to 87 months. Self-labelled I-131-rituximab RIT was also effective when used as repeated treatment for patients with relapsed or refractory NHL including those with aggressive NHL and as combination treatment for NHL.

Safety

Treatment using self-labelled I-131-rituximab NHL was safe and tolerable. Most common toxicity reported was grade III or IV haematological toxicities and hypothyroidism. Combination of I-131-rituximab RIT and high dose chemotherapy increased the toxicity. Radiation exposure to carers and family members of outpatients undergoing I-131-rituximab RIT were compliance with international guidelines.

Cost

The cost of self-labelled I-131-rituximab was a quarter the cost of commercially available Y-90-ibritumomab tiuxetan (Zevalin®).

DISCUSSION AND CONCLUSIONS

Self-labelled I-131-rituximab RIT may be used as first line treatment for NHL, treatment for relapsed or refractory NHL, repeat treatment for relapsed or refractory NHL and as a combination treatment for NHL.

EE 30 Comparison of surgical resection and radiofrequency ablation for the patients with small primary hepatic carcinoma in China

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OBJECTIVE

To compare the effectiveness, safety, length of stay after surgery, and cost of inpatient care of surgical resection and radiofrequency ablation (RFA) for the inpatients with small primary hepatic carcinoma (PHC) (maximum diameter< 5cm) in China.

METHODS

According to criteria, references related to eligible clinical researches were searched and selected from PubMed, Cochrane Library, EMBASE, and two Chinese databases (CNKI and CBM) from January 2010 to December 2015. Two reviewers (Danni Chen and Kun Xiong) independently extracted the data and assessed the methodological quality of the included studies. Descriptive statistics, t tests and Meta analyses were used to compare the effectiveness, safety, length of stay after surgery, and cost of inpatient care of the inpatients with small PHC.

RESULTS

Totally 31 original papers with 5898 cases, 3002 received surgical resection and 2896 received RFA, were reviewed and analyzed. The study showed that, compared with surgical resection, inpatients with small PHC who received RFA had higher survival rates and tumor-free survival rates in1 year, 3 years, and 5 years, and had lower tumor recurrence rates in 3 years and 5 years. However, inpatients with small PHC after RFA had shorter average length of stay after surgery, lower medical costs and lower rates of adverse events, mainly in pain, pleural effusion, celiac effusion and pulmonary infection.

DISCUSSION AND CONCLUSIONS

According to the newest native and international clinical guidelines, including NCCN (2017), AASLD (2017), EASL/EORTC (2012), APSAL (2010), and Standard for diagnosis and treatment of Primary Liver Cancer (2011 Edition, China), there is no agreement on whether RFA should be as an alternative treatment to inpatients with small PHC. Based on recent clinical evidences in China, surgical resection is the first choice.

EE 31 Adjuvant trastuzumab regimen for human epidermal growth factor receptor 2 (HER2) positive early breast cancer (EBC): a systematic review and meta-analysis

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OBJECTIVE

To investigate the efficacy and safety of adjuvant trastuzumab with chemotherapy compared to chemotherapy alone in human epidermal growth factor receptor *2* (HER2) positive in early breast cancer (EBC) women.

METHODS

Systematic search was performed through Medline and Scopus databases in July 2017 to identify published studies which compared the efficacy (measured as overall survival, OS and disease-free survival, DFS) and safety (measured as congestive heart failure, CHF and left ventricular ejection fraction, LVEF decline) of adjuvant trastuzumab with chemotherapy versus standard chemotherapy alone, in HER2-positive EBC women. Data were pooled using random-effects model, if heterogeneity was present; otherwise, a fixed-effect model was used. Subgroup analysis by prognostic factors and intervention characteristics was explored.

RESULTS

Of 2,878 studies, the analysis included eight trials assessing 14,698 patients. Superiority of trastuzumab regimen in terms of efficacy was demonstrated with pooled hazard ratio (HR) for OS at 0.67 (95% CI: 0.61, 0.73, p<0.001), and for DFS at 0.65 (95% CI: 0.55, 0.75, p<0.001). Patients who received trastuzumab regimen though were observed with significantly higher risk for cardiotoxic outcomes with pooled risk ratio (RR) for CHF at 3.71 (95% CI: 2.41, 5.71, p<0.001), and for LVEF decline at 2.17 (95% CI: 1.11, 4.24, p<0.001). The subgroup analyses results showed improved DFS with adjuvant trastuzumab in a weekly-cycle concurrently with anthracycline-taxane chemotherapy regimens, and higher LVEF decline risk with adjuvant trastuzumab in a 3-week-cycle sequentially with any/mixed type of chemotherapy regimens.

DISCUSSION AND CONCLUSIONS

Combining adjuvant trastuzumab with chemotherapy significantly decreased the risk for mortality and relapse among HER2-positive EBC women by one-third, but increased cardiotoxic risks by two to three times more. Moreover, administering adjuvant trastuzumab in a weekly-cycle concurrently with anthracycline-taxane chemotherapy regimen appears to be a preferable option in optimizing its favourable effect by improving DFS and averting higher cardiotoxic risks.

EE 32 CLINICAL HYPNOTHERAPY FOR PAIN MANAGEMENT, ANXIETY, DEPRESSION AND ADDICTION

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OBJECTIVE

To assess the effectiveness, safety and economic implication of clinical hypnotherapy for treatment of pain, anxiety, depression and addiction.

METHODS

Relevant studies published until January 2017 were identified through electronic databases (Ovid MEDLINE, Embase, Cochrane Library, PubMed) in addition to the grey literature and reference lists from review articles. Studies were selected based on inclusion and exclusion criteria and critically appraised using Critical Appraisal Skills Programme (CASP) and graded according to US/Canadian preventive services task force.

RESULTS

Out of 2949 titles identified, 13 articles were included in this review, comprised of nine systematic reviews (SR) with meta-analysis, two randomised control trials (RCT) and two economic evaluation studies. Studies had shown that hypnotherapy was safe as adjunct treatment with no increase in adverse events compared to control. The evidence had suggested that hypnotherapy as effective adjunctive treatment for acute procedural pain and labour pain. It was also found that hypnosis was an effective therapy for reducing exam anxiety (effect size −0.39; 95% CI −0.662,−0.116), emotional distress prior to surgery or medical procedures (effect size= 0.53, CI 95% 0.37,0.69) and anxiety among cancer patients (effect size= 1.05, CI = 0.70,1.41). Hypnotic intervention was associated with a moderate reduction in depressive symptoms (effect size 0.57, 95% CI 0.32,0.81). For smoking cessation, the efficacy of hypnotherapy was similar to other complementary interventions. Hypnotherapy with more than one sessions and delivered face-to-face (live) than via tape reported more significant effect. A combination of therapist delivery with self- hypnosis, shorter intervention time (≤ 30 minutes) and performed before the day of procedure produced the best results. Evidence suggested that adjunct hypnosis was time- efficient intervention and cost- saving practice from an institutional perspective.

DISCUSSION AND CONCLUSIONS

Hypnotherapy conducted by trained personnel may be used as an adjunctive therapy to standard treatment for pain, anxiety and depressive symptoms.

EE 33 Efficacy of Bortezomib, Thalidomide and Lenalidomide for Relapsed/Refractory Multiple Myeloma Treatment: a systematic review and meta-analysis

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OBJECTIVE

For almost 30 %of patients with multiple myeloma is relapsed or refractory to first- line treatment . Conventional chemotherapy such as high- dose dexamethasone, and novel agents i.e. bortezomib, thalidomide, and lenalidomide are used for the treatment of this population, in order to prolong survival . This study aims to assess the efficacy of bortezomib, thalidomide and lenalidomide compared with high- dose dexamethasone in patients with relapsed or refractory multiple myeloma)RRMM.(

METHODS

A systematic search was conducted in electronic databases i.e. MEDLINE, CENTRAL, SCOPUSs from inception to September 2017 .The selection criteria required studies to be randomized controlled trial (RCT) comparing bortezomib- based, thalidomide- based and lenalidomide- based regimens, with high- dose dexamethasone in RRMM patients . The outcome measured was median time to progression) TTP .(Two review authors independently assessed studies for eligibility and extracted data. We combined data to calculate a hazard ratio)HR (with a 95 % confidence interval) CI. (I2 statistics were used to assess the heterogeneity of the results.

RESULTS

A total of 4 articles) 1 pertaining to bortezomib, 1 pertaining to thalidomide and 2 pertaining to lenalidomide (were included . Results of the systematic review indicated that patients treated with bortezomib and thalidomide had a longer median TTP than those treated with high- dose dexamethasone, with hazard ratios of 0. 55 and 0. 88, respectively . Moreover, the meta- analysis showed that patients who received lenalidomide therapy had a significantly longer TTP compared to those who received high-dose dexamethasone)HR =0.35, 95 %CI = 0.42 –0.29, I2.(%0 =

DISCUSSION AND CONCLUSIONS

Bortezomib, thalidomide and lenalidomide were more effective than conventional chemotherapy in prolonging the lives of RRMM patients . Furthermore, lenalidomide had the highest efficacy, yielding longer progression- free survival than other novel agents and appears to be the best treatment option for RRMM patients.

EE 34 Microinvasive Glaucoma Surgery (MIGS) using iStent: A systematic review and meta-analysis

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OBJECTIVE

To assess the effectiveness and safety of using iStent for treatment of patients with mild to moderate open angle glaucoma (OAG) since it has not been used in any ministry of health facilities.

METHODS

Relevant articles published until March 2017 were identified through several databases and additional articles were identified from references of retrieved articles. Selected full-text articles were included if they meet the inclusion criteria. Quality assessment of the included articles were assessed using several tools. The articles were graded based on guidelines from United States/Canadian Preventive Services Task Force. RevMan 5.3 was used to carry out meta-analysis.

RESULTS

Fifteen full-text articles meeting the inclusion criteria whereby five articles were included in meta-analysis. Pooled data of five RCTs showed statistically significant reduction in intraocular pressure (IOP) of iStent with phacoemulsification versus phacoemulsification [baseline (wash-out/no wash-out) and endpoint (wash-out)] (MD = -1.33, 95% CI: -2.01,-0.65) and in the number of glaucoma medications (GM) used favouring implantation of one iStent at 12 to 15 months (MD= -0.30, 95% CI:-0.46, -0.13) and at 24 to 48 months duration (MD=-0.32, 95% CI:-0.55, -0.08). Insertion of iStent in combination with phacoemulsification without control group effectively lowers the IOP by 10.2% to 36.3% and GM by 22.2% to 84.2%. In the solo procedure, both outcomes and success rate increased with an increase in the number of iStent implanted. Two iStent significantly reduced IOP compared to medical therapy (p=0.02). All studies reported favourable safety profile and no deaths related to iStent implantation.

DISCUSSION AND CONCLUSIONS

iStent was able to reduce post-operative IOP and GM and considered as a safe procedure. Hence, iStent has the potential to be a valuable option for management of patients with mild to moderate OAG. However, criteria for patient's selection should be developed and clinicians should be credentialed and privileged to perform the procedure.

EE 35 Antibiotic Prophylaxis of Catheter-Associated Urinary Tract Infections: Systematic Review and Network Meta-Analysis

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OBJECTIVE

Various antibiotics have been used as prophylaxis for a catheter-associated urinary tract infection (UTI) in elective surgery. However, these evidences showed controversial efficacy. A systematic review and network meta-analysis was therefore conducted to compare all types of antibiotic prophylaxis and rank according to probability being best in lowering catheter-associated urinary tract infections.

METHODS

Relevant studies were identified from PubMed and Scopus up to June 2017. Only Randomised Controlled Trials were selected if they met following criteria: adults patient, undergone elective abdominal surgery, with catheter inserted in the urinary tract, systemic antibiotics were used for prophylaxis pre-surgical or post-surgical before catheter removal. Treatment efficacy shall be measured in terms of bacteriuria or catheter-associated of urinary tract infections reported in the period of no longer than 3 days after catheterisation. A network meta-analysis with consistency model was applied to assess treatment efficacy. Risk ratio (RR) along with 95% confidence interval was then estimated. The surface under the cumulative ranking curve (SUCRA) was used to estimate the probability of being the best antibiotic prophylaxis.

RESULTS

Among 11 RCTs (1 833 subjects) that were eligible, 6 different antibiotic classes were used, i.e., second- generation of cephalosporins (2nd Ceph, 3 RCTs, n = 443), third-generations of cephalosporins (3rd Ceph, 3 RCTs, n = 473), quinolones (Quin, 2 RCTs, n = 370) sulfonamide (3 RCTs, n = 340), beta-lactamase inhibitor (1 RCTs, n= 235), and nitrofuran (1 RCTs, n = 435). Network meta-analysis was applied to assess relative treatment efficacy between these corresponding antibiotics and placebo/no treament; yielded the pooled RRs of 0.12 (95% CI: 0.04, 0.32), 0.17 (95% CI 0.07 to 0.43), 0.22 (95 % CI 0.14 to 0.32) 0.46 (95% CI 0.31 to 0.69) ,0.56 (95% CI 0.32 to 0.99), 0.63 (95% CI 0.50 to 0.80). SUCRA was applied and indicated that the 2nd Ceph was the most effective antibiotic prophylaxis in lowering infection followed by the 3rd Ceph and Quin.

DISCUSSION AND CONCLUSIONS

Our study indicated that 2nd Ceph could be best in lowering infection compared with other antibiotic classes, followed by 3rd Ceph and Quin. These might be prescribed for prophylaxis in catheter-associated UTI. However, risk of bacterial resistance in an individual and community should be also concerned as for their broad spectrums..

EE 36 Systematic Review of Triage System for Managing Overcrowding Emergency Department: A Meta Analysis

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[5]Chairman of Corporate Communication, The Medical Association of Thailand Under Royal Patronage & General Secretary

OBJECTIVE

Emergency triage has strategic plan used to assess patients' severity within a short time after their arrival to Emergency department (ED). Triage systems used to assign priorities and accommodate transfer each patients to appropriate area. Assignment of triage reflects the clinical urgency of the patient's condition. Despite many types of triage were used to alleviate the problem of ED overcrowding, but the problem is still persistent and identified as a national crisis in some countries.

To estimate and compare the outcomes when four different types of triage systems in ED. Secondary objectives is to compare the effectiveness of among selected triage systems in term reducing length of stay (LOS), waiting time (WT) and percentage amount of patient left without been seen (LWBS).

METHODS

Studies were identified from PubMed and Scopus resulting of 19 studies were included (13 RCTs and six observational studies) using four triage system - Emergency Severity Index (ESI), Manchester Triage Scale (MATS), Canadian Triage and Acuity Scale (CTAS) and Australasian Triage Scales (ATS). Data were pooled using a random effect model if heterogeneity between studies was present. Pooling of the data were analysed using STATA version 14.0.

RESULTS

For primary outcomes,pooled results from MATS and CTAS showed slight better performances in reducing mortality rates when compared with two comparators andinconclusive results for ESI as limited number of study were included. In general, all four triage system were able to give almost similar results in reducing the LOS in ED when compared with the common comparators {ESI: 363 vs 445 mins with mean difference of -82 mins (95% CI -111 to -53); MATS: 360 vs 410 mins; CTAS: 323 vs 370 mins; ATS: 294 vs 340 mins}. Outcomes of WT were concluded from two triage system (ESI and ATS) showed that ESI was slight superior in reducing WT when compared with fast track. A reduction of 21% to 49% in LWBS were seen with different two comparators i.e. fast track and streaming on ATS and MATS.

DISCUSSION AND CONCLUSIONS

Overall in our review indicates that ESI and CTAS triage system were better result in mortality and LOS outcomes. Inconclusive results in WT and LWBS as the results only indicates slight significant differences results among the four triage systems.

Keywords: Triage system, Emergency department, overcrowding, ESI, MATS, CTAS and ATS.

EE 37 Effectiveness Of Physical Rehabilitation In Advanced Cancer Patients

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OBJECTIVE

Due to the increase of cancer survival, more effective cancer patients' management system is needed. This article intends to evaluate the efficacy of supervised-exercise rehabilitation in advanced cancer patients

METHODS

A systematic search of electronic databases, including MEDLINE, EMBASE and the Cochrane Library, as well as three domestic databases from inception to 3 July 2017, was performed. Two reviewers independently screened all references according to selection criteria. The Cochran Risk of Bias (RoB) for randomized controlled trials (RCT) and Risk of Bias for Non-randomized studies (RoBANS) were used to assess quality of literature. Data from randomized controlled trials and pre-post studies were combined and meta-analysis was performed.

RESULTS

A total 11 studies were included. 4 studies were randomized controlled trials and the remaining 7 studies were pre-post studies respectively. Meta-analyses were performed by study design. For RCT meta-analyses, exercise interventions showed little reduction in fatigue than control group with standardized mean difference (SMD), –0.62 and 95% Confidence Interval (95% CI: –0.87 – 0.37). In meta-analyses for pre-post studies, exercise interventions resulted in improvements in muscular strength from baseline to follow-up: Leg press (mean difference (MD): 12.13, 95% CI: 5.90 - 18.35); Bench press (MD 4.81, 95% CI: 0.85 - 8.77); Abdominal crunch (MD 6.48; 95% CI: 2.01 to 10.96); Back (MD 5.18; 95% CI: 1.59 - 8.77). Exercise interventions have a positive impact on quality of life measured by EORTC-QLQ-C30 from baseline to follow-up (MD 9.86, 95% CI 1.56 - 18.34).

DISCUSSION AND CONCLUSIONS

Exercise may have beneficial effects on fatigue and be effective to improve muscular strength for advanced cancer patients based on existing studies. However, the positive results must be interpreted cautiously because of the heterogeneity of studies. More studies are needed to further investigate how to sustain positive effects of exercise over time.

EE 38 Adverse Effect of Unhealthy Food and Beverages Marketing to Children: A Systematic Review

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OBJECTIVE

To evaluate the effect of marketing (via all medium such as TV, radio, internet or magazine) of unhealthy food and beverages to children.

METHODS

Relevant trials published until March 2017 was identified through several databases including the Ovid MEDLINE, PubMed, Embase and online publishing site. Studies were selected based on inclusion and exclusion criteria and critically appraised using Critical Appraisal Skills Programme (CASP) and graded according to US/Canadian preventive services task force.

RESULTS

A total of 1104 titles were identified through the Ovid Interface and PubMed and 42 were identified from other resources. Fifteen articles related to the effect of unhealthy food and beverages marketing to children were included which consisted of four systematic reviews, one pre-and post-intervention study and ten cross sectional studies.

There was fair to high level of retrievable evidence to suggest that unhealthy food and beverages marketing increased dietary intake and food consumption. Evidence suggest that the effect was more significant in children and with increased frequency of TV viewing {watching TV for ≥ 2 hours daily resulted in increased consumption of carbonated soft drinks [Odds ratio (OR) 2.2 (95%CI: 1.2, 4.0) p=0.029], hamburgers [OR 2.0 (95%CI: 1.2, 3.2) p=0.016] and French fries [OR 2.1 (95%CI: 1.4, 3.1) p<0.001] compared to < 1 hour TV watching}. It also increased children preference towards advertised food, desire and frequency to consume food products, perception, recognition, purchase request and brand knowledge among children. Frequency of TV viewing of unhealthy food and beverages advertisement and logo recognition was associated with body mass index and dental caries.

DISCUSSION AND CONCLUSIONS

Unhealthy food and beverages marketing via television and internet was found to have adverse effects on children and hence not recommended. Evidence provided input for the Nutrition Division to come out with the policy or monitoring system in Malaysia

EE 39 Effectiveness of salt reduction intervention for large-scale population: systematic reviews and meta-analysis

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OBJECTIVE

Blood pressure rising was a leading causeof global mortality .Many strategies had been explored to reduce hypertension and salt reductionprogram was one widely implemented strategy. This systematic review was conducted which aimedto assess effectiveness of population- wide salt reduction programs.

METHODS

Studies were identified from Medline and SCOPUS databases since from 1975 to 23rdJune 2017. The before and after implementation studies which implemented any type of a large-scale salt reduction program in population aged >15 years were eligible.Types of the intervention could be harness industry for food reformulation, food labeling, taxation, health education and promoting salt substitutes. The mean of 24-hr urine sodiumwas amainoutcome of interest . Unstandardized mean difference of 24- hr urine sodium before vs after implementation of program was calculated and pooled using random effect model.

RESULTS

A total of 2,956 studies were identified but only4studies published during 2006 to 2016 were eligible .Among them, one each was from Ghana and UK, and two studies were from Australia. All of themassess24-hr urine before) n =2,686(and after) n= 1,960- (implementations of salt reduction programswith follow time of 0.5 to 5 years. The pooled unstandardized mean difference of 24- hr urine sodium was- 182.35 mg)95%CI -289.23,- 75.46 (, which could be interpreted that 24-hr urine sodium was reduced about 182 mg after implementation of salt reduction program .It accounted about 4.7 %to 6.1 %reduction of 24-hr urine sodium from the baseline after 0.5-5 years implementation.

DISCUSSION AND CONCLUSIONS

The package of salt reduction implementation among large-scale population was effective, which could reducethe mean of 24-hr urine sodium about 4.7 %to 6.1 %during 0.5-5 years . If the increase rate is constant, it might be possible to archive 30% reduction by 2025 as for the global target.

EE 40 Effect of sFlt/PlGF ratioon the prediction of pre-eclampsia: a systematic review and meta-analysis

Zhen Huang, Yingyao Chen, Da Li, Luyang He Key Lab of Health Technology Assessment (Ministry of Health), School of Public Health, Fudan University

OBJECTIVE

Pre-eclampsia, characterized by new-onset hypertension and proteinuria, is a severe obstetric complication leading to maternal and foetal mortality.In women with pre-eclampsia, the level of anti-angiogenic soluble fms-like tyrosine kinase 1 (sFlt-1) is increased, and the maternal serum concentration of angiogenic placental growth factor (PlGF) is decreased. The study aims to investigate the capacity of sFlt/PlGF ratio to predict pre-eclampsia.

METHODS

We conducted literature retrieval on PubMed, Web of Science, CNKI, and Wanfang and searched for published articles in English and Chinese about the relationship between serum levels of sFlt-1 and PlGF and their ratio in predicting pre-eclampsia. We excluded non-compliant articles and conducted meta-analysis of the results of included studies using Stata 14 version.

RESULTS

Among the 19 studies that were included in this research, 14 studiedpre-eclampsia prediction,and ninestudied early-onset pre-eclampsia prediction. Meta-analysis revealed that the pooled sensitivity and specificity were 81% (95% CI, 70%-89%; I^2=95%) and 91% (95%CI, 81%-96%; I^2=99%) respectively; thatthe positive and negative likelihood ratios (PLR and NLR) were9.0(95%CI, 4.1-19.7) and 0.21(95%CI, 0.13-0.34) respectively; and that the diagnostic odds ratio was 43(95% CI, 16-117) in predicting pre-eclampsia. For predicting early-onset pre-eclampsia, the pooled sensitivity and specificity were 90% (95%CI, 82%-94%;I^2=74%) and 94% (95%CI, 86-97, I^2=95%) respectively; thePLR and NLR were 14.2 (95%CI, 6.4-31.4) and 0.11(95%CI, 0.06-0.20) respectively; and the diagnostic odds ratio was131(95%CI, 44-391) respectively.

DISCUSSION AND CONCLUSIONS

Our analysis indicates that sFlt/PlGF ratio is a useful index for predicting pre-eclampsia, especially in early-onset pre-eclampsia.However, this conclusion must be interpreted cautiously due to high heterogeneity among the included studies.

EE 41 The Effectiveness of Hospital-based Clinical Pathways for Acute Stroke Management: a Systematic Review

Li Xue, China National Health Development Research Center Guo Wudong, China National Health Development Research Center

OBJECTIVE

The evidence about the impact of hospital-based acute stroke Clinical Pathways (CP) is debatable. This systematic review aims to assess the effectiveness of CP among patients admitted into hospital care with diagnoses of acute stroke, compared to alternative treatments in Randomized Clinical Trials (RCTs).

METHODS

Reviewers searched the databases with the help of reviewed key words and subject headings, and processed the rounds of screening in according with the pre-defined inclusion and exclusion criteria. The PRISMA statement has been adopted to organize the reporting content and format. The Cochrane Collaboration risk of bias tools were employed to evaluate the validity of eligible RCTs and determine the adequacy and quality of included papers. With the help of Review Manager statistical software, Mantel-Haenszel statistical test was performed for heterogeneity in using a fixed-effects model and the forest plot to interpret the synthesis of findings.

RESULTS

12 eligible papers consisting of 9 independent studies were selected for this review. With the exception of the indicator **NO. of death**, there was no statistical homogeneity observed through the analysis of selected health outcomes whose data were eligible. Based on the analyses of heterogeneity, there is more likely an overall improvement in the intervention arm in terms of **length of stay** (P<0.00001), **NO. of death** (OR=0.56; 95% CI [0.45;0.69]; P<0.00001), **SF-36 general score** (P=0.001), NO. of patients whose **Barthel Index score** greater than 50 after 90 days of discharge (P=0.01), NO. of patients receiving **timely swallowing test** within required timeframe (P<0.00001), NO. of patients receiving the **timely thrombolysis treatment** (P=0.03).

DISCUSSION AND CONCLUSIONS

The impact of hospital-based acute stroke CP is associated with positive and negative effects, but this review reported a higher likelihood of positive results on selected health outcomes, conditionally.

ORAL PRESENTATION
HEALTH SYSTEMS RESEARCH ABSTRACTS

9 May 2018			
11:00-11:20	**HSR 1**	In-Effective Technologies: Health Technology Assessment (HTA) in Malaysia	Malaysia
11:20-11:40	**HSR 2**	Expert Survey for midand long-term planning of National Health Clinical Research	Korea
11:40-12:00	**HSR 3**	Pilot study of establishing a horizon scanning system in China	China
13:00-13:20	**HSR 4**	A systematic review of evaluation studies of complex interventions in health care	Thailand
13:20-13:40	**HSR 5**	Introduction of Value-based Assessment Frameworks in new health technology approval system in Korea	Korea
13:40-14:00	**HSR 6**	Development of Value-Based Pricing in Singapore	Singapore
14:00-14:20	**HSR 7**	Health Technology Assessment of Medical Devices in Taiwan: Lessons from Cochlear Implants	Taiwan
14:20-14:40	**HSR 8**	Impact/influence of Health Technology Assessment (HTA) reports in Malaysia: result of a mixed-method evaluation	Malaysia
15:10-15:30	**HSR 9**	Fatigue in cancer patients receiving chemotherapy: is there a role for Chinese herbal medicines?	Malaysia
15:30-15:50	**HSR 10**	Traditional and complementary medicine (TCM) in Malaysia: HTA role in decision/policy making	Malaysia
16:00-16:20	**HSR 11**	Evaluating the effect of Shanghai Standardized Resident Training Program from the perspective of residents	China
16:25-16:45	**HSR 12**	The role of HTA in developing a health policy: The case of peritoneal dialysis (PD) first policy in Thailand	Thailand
16:45-17:05	**HSR 13**	Factors associated achievement of treating with anti-vascular endothelial growth factor drugs according to the treatment guideline	Thailand
17:05-17:25	**HSR 14**	Research on the real-world application of malaria rapid diagnostic testing (RDT) technology and laboratory technicians' awareness and evaluation about it: based on a survey to primary healthcare providers in Jiangsu province	China

HEALTH SYSTEMS RESEARCH
WEDNESDAY, MAY 9 2018

MODERATOR

- Assoc. Prof. Wendy Babidge
- Dr.Jomkwan Yothasamut
- Dr.Roongnapa Khampang
- Prof. Brendon Kearney

COMMENTATOR

- Assoc. Prof. Dr. Cherdchai Nopmaneejumruslers
- Prof. Kalipso Chalkidou
- Dr. Somsak Chunharas
- Dr.Junainah Sabirin
- Dr.Ryota Nakamura
- Prof. Brendon Kearney
- Assoc. Prof. Nithat Sirichotiratana
- Asst.Prof.Dr.Thunyarat Anothaisintawee
- Dr. Mohamed Gad

HSR 1 In-Effective Technologies: Health Technology Assessment (HTA) in Malaysia

Maharita AR, Junainah S & Syful Azlie MF Ministry of Health (MOH) / Malaysia

OBJECTIVE

To assess the role of HTA in reducing the use of in-effective technology in Malaysia

METHODS

Databases on HTA and Mini-HTA produced by MaHTAS from 1997 to 2017 were reviewed. Classifications of recommendation were analyzed and in-effective technologies were identified and reasons were analyzed. Decision/policy making related to the in-effective technology were reviewed to know how far the HTA played the role. Ever since, types of technologies has been reviewed included medical devices, screening / diagnostic tools, drugs, programs such as screening programs especially for cancer, traditional and complimentary technologies and health related environmental technologies, like disinfectant, purifier and sterilizers. The recommendation was determined based on evidences appraised and advised form appointed expert committees. The recommendations of each report were divided into "recommended", "research purposes" and "not recommended". The "not recommended" category was further subdivided into "more evidence required", "high cost" and "in-effective" technologies.

RESULTS

Since 1997 to 2017, MaHTAS has produced 69 HTA and 338 mini-HTA reports whereby nine (13.04%) HTAs and 135 (39.94) mini-HTAs were categorized under "not recommended" technologies. Out of this, eight (7.28%) HTAs and 69 (51.1%) mini-HTAs were sub-grouped into "in-effective" technologies. Reasons for ineffectiveness were the technologies were found not to be superior to the placebo or current/standard practices; and poor safety profile. A number of in-effective technologies were not adopted / implemented in MOH facilities such as ozone therapy, technologies involved magnetic and electrostatic field therapy and few population base cancer screening programs. Few technologies have been disinvested such as routine pre-operative investigation, routine chest X-ray in medical checkup with potential saving up to 4.8 million per year and maternal screening for fetal abnormality.

DISCUSSION AND CONCLUSIONS

The HTA has played an important role in reducing the used of in-effective technology in Malaysia as well as assuring the safety of the patients.

HSR 2 Expert Survey for midand long-term planning of National Health Clinical Research

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[1]Coordinating Center for National Health Clinical Research(NHCR) [2]National Evidence-based Healthcare Collaborating Agency(NECA)

OBJECTIVE

Establishing development directions for public clinical research. Establishment of evidence for the necessity of public clinical research, research fields that needs evidence generation, and the necessity to build infrastructures to provide integrated research data.

METHODS

The subjects of the survey were academic and insurance director of 40 clinical academies of the Korean Academy of Medical Sciences, and health technology evaluation experts belonging to universities and public institutions, The questionnaire was sent to academies, institutions by an official letter and examined in writing. A total of 62 participants.

RESULTS

It is important to outcome research, comparative effectiveness research for prevention, diagnosis, treatment, rehabilitation strategies Public clinical research are important for improving the achievement of the health care system, but have recognized that investment in research funds is not sufficient.

The areas that need to be generated evidence through public clinical research are as follows: aging/low birth solution service/system, solving public/patient safety problems, and health maintenance/promotion.

As for infrastructure support and capacity building, it was recognized that existing data should be utilized for new research, and data linking and sharing systems are needed.

DISCUSSION AND CONCLUSIONS

In addition to the treatment of diseases, prevention is important, and it is necessary to establish evidence for finding solutions to aging/low birth problems.

For this purpose, infrastructure support for public clinical research, especially data utilization should be improved.

HSR 3 Pilot study of establishing a horizon scanning system in China

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OBJECTIVE

This study aimed to identify existing best practices and effective methods for health technology horizon scanning system (HSS), and collect the needs and recommendations for the proposed HSS in China from potential users. Establish a pilot HSS in China and conduct trial assessment.

METHODS

A comprehensive search for literature and a targeted search of web sites of the HSS organizations were performed to identify existing horizon scanning methods. 20 potential users including policy makers, health insurance administrators, food and drug administrators, clinical experts, were invited to participate the face to face interview to collect their needs and recommendations. A pilot HSS was established, 5 new health technologies trial alerts were produced and published in the institution's website.

RESULTS

Most of formally established HSSs in the world are members of EuroScan and they share common functions and structures defined by EuroScan, all HSSs aim to "identify, filter and prioritize new and emerging health technologies to assess or predict their impact". However, it is necessary to adjust the common stages to the needs of the individual HSS. The interview results showed that potential users thought HSS would be helpful for their decision making. The feedback results showed that the alerts were helpful and we need work with decision makers closer to produce evidences to meet their demands.

DISCUSSION AND CONCLUSIONS

We could establish a HSS in China by adopting the international experience and localizing it according to the needs of Chinese health system. It was necessary to disseminate the knowledge of HSS in China in the first step. To acquire the government support and more resources, improve the HSS method, work with decision makers and clinical experts closer are important for HSS future sustainable running.

HSR 4 A systematic review of evaluation studies of complex interventions in health care

Wilailak Saengsri, Sripen Tantivess, Pattara Leelahavarong, Phorntida Hadnorntun

Health Intervention and Technology Assessment Program (HITAP)

OBJECTIVE

Robust evaluations of health interventions are necessary for reliable policy decisions .Meanwhile, this research exercise is highly challenging when the interventions are complex, containing different facets and mechanisms . The objective of this review is to explore evaluation frameworks and study designs employed to evaluate complex interventions in international literature .

METHODS

A systematic search was conducted through EMBASE, MEDLINE, and the Cochrane Library .We included the articles reporting evaluation studies of complex interventions, and systematic reviews of such evaluations .The search was restricted to articles published in English from 1 January 2013 to 29 August 2017 .

RESULTS

In total, there were 108 eligible articles, which were categorized into three groups :outcome, process, and economic evaluations . Sixty- one studies examined outcomes of interventions . Out of these, 13 articles used the pre- and post - intervention design . Only a small number of studies were randomized controlled trials) RCTs(, even though such a research design is regarded as the " gold standard " for assessing effectiveness .Twenty-nine articles involved systematic reviews of RCTs and clustered- RCT studies, some of which reflected on the intricacies of pooling the data due to the diversity in outcome measures, and methodologies . Among the economic evaluations reviewed) n=4(, RCT was the only study design used to assess health outcomes. Twenty- six articles reported evaluation frameworks . Most of these frameworks were developed to guide process evaluations, as they explain how interventions work and why . We also found that most conceptual frameworks were underpinned by the Normalization Process Theory, which focuses on the integration of interventions into everyday service delivery practice.

DISCUSSION AND CONCLUSIONS

The findings are helpful since they highlight the need for careful consideration of methodology including study designs and conceptual frameworks in the evaluation of these interventions. Nevertheless, a limitation of this review is that the search terms might not capture the whole range of evaluation studies of complex interventions.

HSR 5 Introduction of Value-based Assessment Frameworks in new health technology approval system in Korea

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The National Evidence-based Healthcare Collobrating Agency, Korea

OBJECTIVE

The new Health Technology Assessment (nHTA) approval system is responsible for the introduction of new health technologies including procedures and medical devices to thenational insurance system in Korea. The decision of nHTA is completely based on clinical evidences. Since nHTA system is responsible for the new technology introduction, many cases applied for the decision do not have enough real world data obtained in Korea, therefore should apply with very limited number of clinical evidences. Usually,technologies without sufficient clinical evidences are not able to be approved for the new health technology. Although in some cases, including rare diseases or diseases with no alternative technologies, technologies were approved without sufficient clinical evidences, unfortunately result of the evaluation for those were not consistent since there are no evaluation processes established for other values that must be considered than clinical evidences.

In this study, we tried to make a new assessment toolwith values for the nHTA system, besides the clinical evidences-based assessment.

METHODS

We reviewed reports published from nHTA committee for last 10 years and extract values that considered other than clinical evidences during the assessment. Literatures and cases in other countries regarding value-based decision making in medical fields were also reviewed.

We performed the interviews of stakeholders, including clinical experts, industry, decision makers from the government and patients to list up values that should be considered on the assessment of new health technologies.

With summarizing results of reviews and interviews, we suggest a new decision making tool, the Value Framework, using value assessment that reflects opinions of various stakeholders.

RESULTS

In nHTA reports review, we found that 'No or lack of alternative technology' is the most frequently mentioned, meaning that the most important value in the nHTA. 'Patient load', such as procedures frequency decrease, 'rare disease' are followed as considered values.

In the interviews of stakeholders, 'disease severity', 'alternative technology', 'economic consideration', 'ethical consideration' and 'quality of life' are commonly listed as most important values.

As a result of the study, we suggest 8 values,'Disease severity', 'alternative technology', 'quality of life','economic consideration', 'ethical consideration', 'Patient load', 'rarity of disease', 'Probability of abuse'to apply the value-based assessment in nHTA system.

DISCUSSION AND CONCLUSIONS

The nHTA system is established in 2007 to evaluate the safety and effectiveness of the new health technologies trying to introduce into the national insurance system in Korea. The assessment is based on the clinical evidences, thus technologies with insufficient evidences are not able to be introduced into the insurance system. Although clinical evidences are not enough to prove the safety and the effectiveness, some technologies are demanded to be introduced into medical market by various causes. In this study, we extract values which can be considered besides the clinical evidences and set the Value Framework to objectify values. With results from this study, we will apply the Value Frameworkto apply to the decision making in the technology assessment in nHTA. Based on the results, we proposed the new evaluation process for value assessment and will apply this process in the decision for new technologies in 2018 provisionally. We anticipate our tries will give us sufficient information to install a regular evaluation process based on value evaluation in nHTA of Korea.

ACKNOWLEDGEMENT

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HSR 6 Development of Value-Based Pricing in Singapore

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OBJECTIVE

The Agency for Care Effectiveness (ACE) is the national health technology assessment (HTA) agency in Singapore that supports drug subsidy decision-making for public healthcare institutions (PHIs). It introduced value-based pricing (VBP) as part of the drug evaluation process to ensure the price of high-cost patented drugs is commensurate with their value. This presentation summarises the VBP developments and key factors driving its success over the past one year.

METHODS

VBP processes were developed by drawing upon methodologies from overseas agencies with contextualisation to the local setting. They involve market analyses and negotiations with Drug manufacturers based on HTA and cost-effectiveness principles for all branded drugs and biosimilars evaluated by ACE. Data for VBP drugs, including number of years since registration, ratio of local to overseas prices, annual market size, percentage market share and growth rate in PHIs, as well as availability of alternative funding sources were collected. Regression analysis was performed on the data to identify key factors affecting the percentage (%) discounts from current cost prices achieved.

RESULTS

From August 2016 to August 2017, ACE conducted VBP for 46 drugs marketed by 22 manufacturers. The average price discount for 17 drugs with positive subsidy recommendations was 29% (standard deviation of 19%). The price discounts translated into annual cost savings of SGD 7.7 million (USD 5.7 million) in the first year. Regression analysis showed that the availability of alternative funding sources was significantly associated with smaller % discounts ($p<0.005$). No other factors significantly influenced the price discounts offered by manufacturers. A key limitation of the analysis was the small sample of VBP drugs.

DISCUSSION AND CONCLUSIONS

HTA coupled with VBP contribute to an affordable and sustainable healthcare system in Singapore. Efforts will be made to further evolve VBP processes to achieve the best value for limited healthcare dollars.

HSR 7 Health Technology Assessment of Medical Devices in Taiwan: Lessons from Cochlear Implants

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OBJECTIVE

Hearing Loss means patients sound cannot be conductive completely in ears. Some severe hearing loss patients need to rely on cochlear implant. Research has already proved that cochlear implant can help patients have better hearing performance, speech and language skills and improve patients' quality of life such as learning ability and interpersonal relationships. This study aimed to examine the effect for cochlear implant including patient opinion and budget impact from a single-payer(National Health Insurance Administration) perspective in Taiwan.

METHODS

We held in-depth interviews and focus group interviews to collect cochlear implant users' opinions and feedback to understand patients' cochlear implant for 5-year time horizon. or caregivers' personal experience, values, and demands

For budget impact analysis, we used national severe hearing loss statistics to estimate patient numbers who may use cochlear implant but have not been treated with

RESULTS

A total of 2 focus group interviews and 1 in-depth interview was conducted, there are 17 people participated. The result shows newborn parents have strong intention to insert cochlear implant for their hearing loss children for improve children's physical and mental development in the future. However, the economic burden is the most important consideration. There are about 6,700 patients were diagnosed with very severely hearing impaired patients in the first year. Then, the exclusion of patients who ineligible for cochlear implant implantation or have already implanted cochlear implant, there are about 600 patients who are willing to receive implantation. The budget impact about USD 12 million in the first year.

DISCUSSION AND CONCLUSIONS

After two-year assessment and appraisal, Taiwan NHIA decided to reimburse cochlear implant for hearing loss patients who were under 18 years old from July 2017.

HSR 8 Impact/influence of Health Technology Assessment (HTA) reports in Malaysia: result of a mixed-method evaluation

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OBJECTIVE

To evaluate level of impacts/influences of HTA/mini-HTA and to understand facilitators and barriers in its use to informed decision-making related to health technologies.

METHODS

A mixed method evaluation was conducted on the impact/influence of HTA/mini-HTA reports. Impact of the reports produced from 2016 to 2017 was measured using INAHTA-based Evaluation Form. Database on the impact was then reviewed and analysed quantitatively. Impact is defined if any of its indication is present. Level of impact on decision was classified accordingly at four levels. Sequential qualitative assessment of domains (acceptance, impact, facilitator, barrier) was done through triangulation of methods; (1) semi-structured interviews with key informants (decision makers comprising Programme managers, head of clinical service, healthcare provider), (2) unobtrusive measure by reviewing policy and administrative data. Interviews were recorded, transcribed verbatim and thematic analysis was carried out.

RESULTS

A total of forty-six HTA/mini-HTA reports were evaluated and seven semi-structured interviews were conducted. Types of health technology evaluated were medical devices (32.6%), traditional and complementary medicine (21.7%), procedures (15.2%), programmes (15.2%) followed by the others. related to nature of reports were described. Conclusion/recommendation of the reports being accepted (89.1%), reports used as reference material (80.4%), reports incorporated into policy/decision/administrative documents (39.1%) were the most common indication of impact. None of the impact, 39.1% were informed decision, 32.6% have major influence on decision, and 28.3% have some consideration on decision. Impact on diverse types of decision making has been described (act/regulation/guideline formulation, reimbursement, procurement, implementation of programme, continuation/expansion of programme, funding, and influence on clinical practice). Themes surrounding facilitators to the use of HTA in decision making including culture, organizational and communication were identified. Barriers including resources, organizational and factors

DISCUSSION AND CONCLUSIONS

The HTA reports produced had shown indications of impact on various decision making related to health technologies.

HSR 9 Fatigue in cancer patients receiving chemotherapy: is there a role for Chinese herbal medicines?

Lee Sit Wai, Noormah Mohd Darus, Junainah Sabirin Malaysian Health Technology Assessment Section (MaHTAS), Ministry of Health Malaysia

OBJECTIVE

To review evidence on effectiveness, safety and cost-effectiveness of using Chinese herbal medicines (CHM) as an adjunct management for fatigue in cancer patients receiving chemotherapy.

METHODS

Several electronics databases were searched. Two reviewers conducted selection of studies based on inclusion and exclusion criteria and independently appraised the articles using Cochrane Risk of Bias Assessment Tool. Evidence was graded using US/Canadian Preventive Services Task Force grading system.

RESULTS

The search yielded 913 articles. Six studies met the inclusion and exclusion criteria which comprised of one overview of systematic review and network meta-analysis, four randomised controlled trials (RCTs) and one pre and post intervention study. There was limited low to fair level of evidence to suggest CHM as an adjunct improved quality of life (QoL) in cancer patients with pooled Relative Risk (RR) 1.38 [95% Confidence Interval (CI): 1.11,1.72] and improved fatigue symptoms severity compared to control. There were no morbidity and severe adverse events reported. Most of the side effects of the CHM in these studies were mild such as agitation, anxiety, insomnia, nausea and vomiting. There was no retrievable evidence on cost-effectiveness. However, the retail price of certain CHM in Malaysia ranges from RM26 to RM151 per 100gm.

DISCUSSION AND CONCLUSIONS

Most of the studies suggested that CHM may have potential benefit for the management of fatigue in cancer patients receiving chemotherapy. However, the evidence retrieved was limited and had biases. Small number of subjects limited most of the studies and most studies did not report on allocation concealment or blinding. The studies included many types of CHM and different assessment tools were used to measure the efficacy of CHM. More rigorous and well-designed clinical trials were needed. Hence, CHM may be used in a research environment by certified and registered practitioners.

HSR 10 Traditional and complementary medicine (TCM) in Malaysia: HTA role in decision/policy making

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OBJECTIVE

To assess the role of health technology assessment (HTA) as an input for decision/policy making pertaining to TCM in Malaysia

METHODS

Databases of HTA and Technology Review (mini-HTA) reports produced by MaHTAS between 1997 and 2017 were reviewed and reports related to TCM were identified. Factors for not recommending the TCM were identified and analysed. Follow-up on decision/policy making based on the report were conducted via emails, letters or telephone calls to the requestors/ programme officers.

RESULTS

MaHTAS has produced 69 HTA and 338 mini-HTA reports whereby three HTA (4.3%) and 28 mini-HTA (8.3%) were pertaining to TCM. Out of the 31 reports, eight (25.8%) were recommended for routine or selected use in which included traditional Malay massage, acupuncture for certain indications, Chinese herbal therapy, and traditional postnatal care; five (16.1%) for research purpose such as cupping therapy, spiritual therapy, and shirodhara while 18 (58.1%) were not recommended mainly due to lack of evidence on safety or effectiveness (ozone therapy, hydrotherapy). Our reports on TCM had showed influence in various ways: initiation or implimitation of programmes, incorporated into policy or administrative documents (regulation of practice for TCM Act 2016), bases for guideline documents, and used as reference material.

DISCUSSION AND CONCLUSIONS

Although there were several limitations or biases (language barier during the search and methodological quality of the included trials in the reports), the HTA and mini-HTA reports produced by the MaHTAS had played an important role in informed decision/policy making related to TCM in Malaysia. It helps to eliminate unsafe practices.

HSR 11 Evaluating the effect of Shanghai Standardized Resident Training Program from the perspective of residents

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OBJECTIVE

To evaluate the effectiveness of Shanghai Standardized Resident Training Program from the perspective of residents, and to provide evidence and recommendations for the further promotion of the program.

METHODS

Questionnaires were administered to residents who had accepted the standardized training from 2013 every year in June from 2014 to 2016. The survey included the basic information of residents, their understanding and attitude toward the training program, their satisfaction with the program and the assessment of self-improvement. Using random effect model to analyze the data.

RESULTS

There were significant improvements in residents' attitude and satisfaction. Residents have high self-rated score in most respects, especially in clinical skills. However, the self-rating of theoretical knowledge is relatively low.

DISCUSSION AND CONCLUSIONS

The effectiveness of Shanghai Standardized Resident Training Program has already shown up and has been approved by all stakeholders. Shanghai Standardized Resident Training Program sets up an expert group to conduct regular supervision of the training bases in order to find and solve problems in time. This measure helped to improve the training environment and living conditions of residents which finally leaded to the improvements in residents' attitude and satisfaction. The program has effectively improved the clinical skills of residents by continuous improvement of the top design and faculty. It is suggested that welfare treatment and research ability training should be strengthened in the following work. It is also proposed that the government develop effective policy interpretation to attract medical students to enroll the resident training.

HSR 12 The role of HTA in developing a health policy: The case of peritoneal dialysis (PD) first policy in Thailand

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Health Intervention and Technology Assessment Program (HITAP), Thailand

OBJECTIVE

Although the prevalence of diabetes and hypertension, major causes of kidney failure, have significantly increased annually, renal replacement therapy)RRT (still had not been included in the benefit package of universal health coverage)UHC(until 2008 .Patients with end-stage renal disease had burdened from a catastrophic expenditure which inevitably brought to bankrupt of household and without affordable treatment, patients cannot survive . Since then, with a strong sense of " rule of rescue "and an ethical concern to ensure equity across the three insurance schemes, a number of evidences, including HTA, were gathered during the process of developing universal RRT. Finally, the peritoneal dialysis)PD(first policy was introduced by promoting and providing home-based peritoneal dialysis .The objective of this study is to review the development process of the PD first policy and the current situation in Thailand.

METHODS

The policy development and the current situation of the PD first policy were summarized based on a literature review and the interview of stakeholders.

RESULTS

Multidisciplinary HTA evidence (e.g. cost-effectiveness and feasibility study) were considered during the development process .After the introduction of the PD first policy, a number of patients accessing to RRT have been increased rapidly .Annual prevalence of RRT patients has increased from 409 patients per millions population)pmp (in 2003 to 1,199 pmp in 2014. The budget of the policy has increased gradually to about 7 billion baht) USD 220 million(in 2017 but it is still less than half of the estimated expenditure .Strategies such as home delivery of PD solutions have been developed in an attempt to decrease the cost of PD care and sustain the policy .

DISCUSSION AND CONCLUSIONS

HTA plays a crucial role in a health policy development process .However, after the launch of a policy, the monitoring and re-evaluation process are required.

HSR 13 Factors associated achievement of treating with anti-vascular endothelial growth factor drugs according to the treatment guideline

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OBJECTIVE

Anti-vascular endothelial growth factor (anti-VEGF) agents have been considered as treatment of choice in the treatment of neovascular age-related macular degeneration (nAMD) and diabetic macular edema (DME). The use of anti-VEGF therapy in routine clinical practice are usually differ from treatment patterns found in randomized controlled trials and clinical practice guideline (CPG). Thus, this study aimed toexamine potential factors associated with the treatment according to recommendation from national list of essential medicines (NLEM) and CPG.

METHODS

We obtained data from a previous cohort of Thai retinal diseases patients who were treated. with anti-VEGF drugs and recruited between 2013 and 2015. We included only datasets of naïve patients who received unilateral treatment for nAMD and DME. The primary outcome was a proportion of patients who received the 3 consecutive monthly injections according to the recommendations. We used multivariable logistic regression to assessed factors contributing to this achievement

RESULTS

Mean age (SD) of the patients was 61(11) years. There was 206 (25%) out of 829 patients who received the first 3 consecutive anti-VEGF injections. Proportions of males, the Civil Servant Medical Benefit Scheme (CSMBS) beneficiary, patients with lower level of education and household income were comparable between two groups. We found that factor associated with this achievement were age (OR1.0;95%CI 1.0 to 1.05), receiving treatment at university hospitals versus tertiary hospital (OR 2.2; 95%CI 1.5 to 3.2), and having at least 3 comorbid conditions versus less than 3 conditions (OR 0.7; 95%CI 0.5 to 1.0).

DISCUSSION AND CONCLUSIONS

Low proportions of patients received the anti-VEGF treatments according to the treatment recommendations and CPG. Understanding the real-world usage patterns and factors associated with the achievement would provide benefit in terms of developing strategies to improve treatment outcome.

HSR 14 Research on the real-world application of malaria rapid diagnostic testing (RDT) technology and laboratory technicians' awareness and evaluation about it: based on a survey to primary healthcare providers in Jiangsu province

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OBJECTIVE

To investigate the real-world application of malaria Rapid Diagnostic Test (RDT) technology and laboratory technicians' awareness and evaluation about it at primary healthcare provider level in Jiangsu province, thus providing empirical evidence and policy suggestions for RDT's future application and promotion.

METHODS

We first analyzed the malaria surveillance data of the year 2012 to 2016 to describe the overall disease background for malaria microscopy and RDT application in Jiangsu province. Valid questionnaires were collected from 817 health institutions and 800 laboratory technicians at prefecture city, county and town level in Jiangsu province respectively to be included in the data analysis.

RESULTS

(1) The annual task load of malaria microscopic testing in Jiangsu remained comparatively high. Health institutions at county and town-level are faced with limited laboratory professional resources and heavy workload. (2) The supply of RDT test strips has been rapidly increasing during 2012 to 2016. RDT testing has been performed in 76. 87% of the investigated institutions. (3) The investigated institutions gave higher scores for RDT in terms of testing time and professional personnel needed while giving lower scores for it in terms of testing accuracy and supporting measures. The investigated individuals gave higher scores for RDT in terms of operational difficulties and patient acceptance while giving lower scores for it in terms of plasmodium differentiation capacity and substituted value to microscopy.

DISCUSSION AND CONCLUSIONS

RDT technology has been widely performed in health institutions in Jiangsu province but it has been used under insufficient guidance and with non-standard operation. In the future, more needs to be done in terms of RDT professional training, quality control measures and process management to exploit the potential value of RDT in the field of malaria testing and diagnosis.

10 May 2018			
9:00-9:20	**HSR 15**	Priority setting of health problems among migrant workers in Thailand	Thailand
9:20-9:40	**HSR 16**	Criteria For Priority Setting In Health Care: A Systematic Review Of Evidence From Low & Middle- Income Countries	India
9:40-10:00	**HSR 17**	A pilot study of multiple criteria decision analysis (MCDA) for reimbursement decision: an exercise on metastatic castration-resistant prostate cancer (mCRPC) in Taiwan	Taiwan
10:00-10:20	**HSR 18**	The need for quality improvement of healthcare services in Thailand by using quality standard	Thailand
11:00-11:20	**HSR 19**	Evaluating the influence of non-for-profit status of private health care facilities on their medical costs of long-term care in Shanghai	China
11:20-11:40	**HSR 20**	Emergency medical services use by the elderly: the current situation in Thailand	Thailand
11:40-12:00	**HSR 21**	Factors affecting out-of-pocket expenditure on health in Thailand: Results from a two-part model	Thailand

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THURSDAY, MAY 10 2018

MODERATOR

- Dr.Suthee U-sathaporn
- Dr.Junainah Sabirin

COMMENTATOR

- Dr. Sitaporn Youngkong
- Dr. Ryota Nakamura
- Assoc. Prof. Nithat Sirichotiratana
- Assoc. Prof. Wendy Babidge

HSR 15 Priority setting of health problems among migrant workers in Thailand

Thanaporn Bussabawalai, Danai Chinnacom, Suppawat Permpolsuk, Maneechotirat Santi

Health Intervention and Technology Assessment Program (HITAP), Thaialnd

OBJECTIVE

According to data from the Foreign Workers Administration Office, Ministry of Labour, numbers of registered migrant workers in Thailand continues to increasefrom 0.6 in 2011 to 1.4 millions in December 2015 .Recent statistics in 2011 showed less than 9 %access to health care services provided by the Thai Social Security Scheme) SSS .(In addition, the Ministry of Public Health introduced the Health Insurance Card Scheme)HICS (since 2004 for migrant workers who were not covered by the SSS .However, the list of diseases and their benefit package covered by the HICS has not been updated for ten years . Therefore, this study aimed to prioritise health problems of migrant workers in Thailand for a revision of the list of diseases and benefit package provided by the HICS.

METHODS

This study used a modified Delphi consensus process in an expert meeting, aiming to select high-priority health problems of migrants . The participants in expert meeting were policy makers, technical specialists, academicians and non- governmental organization (NGO) representatives . Twenty diseases of migrants were divided into 10 communicable diseases (CDs) and 10 non - communicable diseases (NCDs). Diseases prioritisation was conducted in 3 rounds, the first round was diseases selection, the second and the third rounds were diseases ranking.

RESULTS

Health problems of migrant workers prioritised in the NCDs group were pregnancy test and pregnancy care , diabetes, liveborn infants care, hypertension, drug addiction, work related injury, intracranial injury, psychosis, breast cancer, and cervical cancer . Prioritised health problems in the communicable disease group were tuberculosis, HIV/AIDS, vaccination, syphilis, diarrhoea, dengue fever, lymphatic filariasis, leprosy, hepatitis B, and malaria. **DISCUSSION AND CONCLUSIONS**

The prioritised diseases will be researched on their severity, effectiveness of screening and treatment, and budget impact .Results from these studies will be used to guide the revision of the existing HICS for migrant workers in Thailand.

HSR 16 Criteria For Priority Setting In Health Care: A Systematic Review Of Evidence From Low & Middle-Income Countries

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[5]Founding director, health intervention and technology assessment program, Thailand

OBJECTIVE

priority setting is inevitably interwoven in every country's health system. we reviewed literature with the aim of identifying criteria being used for priority setting in low- and middle-income countries (lmics). further these studies were analysed with a policy lens to understand the healthcare priority setting processes (psp).

METHODS

electronic searches were carried out systematically in pubmed, embase, econlit, cochrane and crd york databases; supplemented with searches in google scholar, important websites and reference lists of relevant papers. papers from any particular study design, timeframe, approach or methods for eliciting criteria from lmics (as per world bank classification) were selected. quality appraisal of included studies was undertaken. review protocol was registered under prospero 2017 (crd4201768371).

RESULTS

of 16,638 records screened by title and abstract, 112 papers were identified for full text screening. a total of 44 studies, primarily empirical in nature, were included in the final analysis. this review noted an increase in number of empirical studies on psp in the last decade. based on a synthesis of selected studies, at overall level, we found that cost-effectiveness and health benefits were most cited criteria for psp in health care in lmics. inter-region variations amongst criteria were also noted. barriers and facilitators to psp in lmics were identified. this research outlines approaches used including health technology assessment, accountability for reasonableness, multi-criteria decision analysis in psp and draws on policy insights for decision-making in lmics.

DISCUSSION AND CONCLUSIONS

several lmics are trying to establish institutional framework for health technology assessment to support universal health coverage reforms. this review will help in providing key recommendations on what are the criteria and processes being used for priority setting in various lmics, what are the strengths and weaknesses in such processes etc.

HSR 17 A pilot study of multiple criteria decision analysis (MCDA) for reimbursement decision: an exercise on metastatic castration-resistant prostate cancer (mCRPC) in Taiwan

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OBJECTIVE

Since the annual average growth rate of National *Health Insurance* expenditure is about 5% and *new health technologies* increase the demand for *insurance coverage*, there is a need for an explicit approach to support reimbursement process in Taiwan. Multiple criteria decision analysis (MCDA) has been suggested as a method to consider multiple criteria in a consistent and transparent manner. However, the real-world application is limited. The objective of this study is to explore the application of MCDA in the context of health technology assessment (HTA).

METHODS

Docetaxel, abiraterone, enzalutamide and radium-223 were evaluated for metastatic castration-resistant prostate cancer patients without previous chemotherapy. EVIDEM (Evidence and Value: Impact on DEcisionMaking) framework was used to build our model to assess the value of treatments. During this process, evidence was collected, for those, methodology experts, policy makers and clinical experts were consulted. Once selected and defined the criteria, relative references and performances scoring were used to create the questionnaire.

RESULTS

Eleven criteria were defined and grouped into four dimensions. Dimensions (criteria in each dimension) comprised: knowledge about intervention (adherence to the decision-making body, consistency of evidence, and clinical guidelines), intervention needs (disease severity, population size, and current interventions' limitations), comparative outcomes (comparative effectiveness, comparative safety, and comparative patient-reported outcomes) and Economic consequences (cost-effectiveness and budget impact). In this study, drugs and medical service were both evaluated. It conflicted with the reimbursement process in Taiwan because they were evaluated separately. However, including all alternatives used for the same indication could give us a comprehensive consideration to the impact of a new technology.

DISCUSSION AND CONCLUSIONS

To apply a new methodology for supporting reimbursement decisions for *new health technologies is crucial with limited resources*. This application of MCDA produced a set of criteria in a structured way. Future criteria weighting and performance scoring will be conducted.

HSR 18 The need for quality improvement of healthcare services in Thailand by using quality standard

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OBJECTIVE

Quality standard is an initiative to elevate the quality of healthcare services under Universal Health Coverage which included 83 services. This study aimed to investigate the problems of healthcare services and prioritise those healthcare services for developing quality standards.

METHODS

Healthcare services problems were reviewed via available information in Thailand, moreover, a stakeholders' consultation meeting was conducted to discuss current problems. Invited stakeholders were policy makers, healthcare providers, patient representatives, and local practitioners. Proposed topics were prioritised basing on both empirical evidences derived from literature review prepared by researchers and stakeholders' experiences.

RESULTS

Antenatal care (ANC) services were prioritised with the following services and issues; 1) receiving ANC before 12 weeks of pregnancy: pregnant women were not concerned about receiving ANC services and a lack of proper information of ANC was observed. 2) Fundal height measurement: health practitioners performed different practices. 3) Laboratory examination: inadequate examination; insufficient follow-up system, and pregnant women were not informed about laboratory examination services. 4) Triferdine supplementation: not all pregnant women receive triferdine throughout their gestation periods. 5) Pregnancy-induced hypertension, preterm labour, and gestational diabetes screenings: unstandardized screening programmes were delivered across country and there was insufficient emergency transferring services. 6) Parent school: there are limitations included time constraint of staff and parents, lack of well-trained staff to provide services, and lack of standard guidelines for service arrangements.

DISCUSSION AND CONCLUSIONS

Although literature was used to identify ANC related problems, some information may not be documented. Thus, stakeholder consultation is a requisite approach to clarify and verify the findings. Furthermore, quality standards of the prioritised ANC services will be developed to resolve the identified problems. This would help practitioners provide standardised services, while patients would acquire proper ANC information.

HSR 19 Evaluating the influence of non-for-profit status of private health care facilities on their medical costs of long-term care in Shanghai

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OBJECTIVE

To facilitate the development of private long-term care to meet the needs of an ageing population, Shanghai Social Medical Insurance (SSMI) authorized many private health care facilities for their long-term care.

Our study aims to evaluate the influence of non-for-profit status of private health care facilities on their medical costs of long-term care in Shanghai.

METHODS

All data related to inpatients discharged from every private SSMI long-term care facilities in 2016 were extracted from the information system of the Shanghai Municipal Medical Insurance Office. Multilevel linear regression models were used to compare total daily medical costs between private, non-profit SSMI long-term care facilities and private, for-profit SSMI long-term care facilities.

RESULTS

The study showed that 20,777 inpatients were discharged from 54 private SSMI long-term care facilities. Non-profit SSMI long-term care facilities had more female inpatients, more inpatients aged 80 or older, more inpatients with basic medical insurance for urban employees (BMIUE), and more inpatients with primary diagnoses of four surveyed diseases than did for-profit SSMI long-term care facilities. The average total daily medical cost in private SSMI long-term care facilities was 930.91 yuans. The cost was higher in for-profit facilities than in non-profit ones, even after controlling for inpatient characteristics, size of long-term care facilities, and types of diseases.

DISCUSSION AND CONCLUSIONS

The high burden of medical costs of private SSMI long-term care facilities will limit the public's access to them. Possible patient selection and supplier-induced services in private, for-profit SSMI long-term care facilities should be supervised and regulated.

HSR 20 Emergency medical services use by the elderly: the current situation in Thailand

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OBJECTIVE

The number of elderly people) aged 60 years and older (in Thailand has been increasing in recent decades, as well as the demand for emergency medical services) EMS. (It has become one of the most important issues in the country, and the government has been focusing on improving the quality of EMS, especially for vulnerable groups . Therefore, the objective of this study is to examine the current situation of the EMS used by the elderly.

METHODS

This study employed quantitative research methods by conducting secondary data analysis. Data were retrieved from Information Technology for Emergency Medical System, a database developed by National Institute for Emergency Medicine)NIEM(, from the year 2013-2016.

RESULTS

The number of elderly people using EMS has increased over the years .More than 80% of the cases were reported via emergency number 1669 .Illness, fatigue and chronic paralysis were found to be the most common incidents. Moreover, approximately 90 % of patients who called 1669 were treated and referred to hospitals . Response time plays a major role on mortality rate . Patients are likely to survive if the EMS responses within 8 minutes .The data analysis also indicates that leading causes of death among elderly people who used EMS was unconscious, unresponsive, unconscious for a short while . Also, the number of the elderly who died outside the hospitals after calling 1669 has risen every year.

DISCUSSION AND CONCLUSIONS

The results showed that response time is very crucial .If the emergency team's response time is less than 8 minutes, the elderly who made emergency calls are likely to survive . Thus, NIEM and Thailand' s Ministry of Public Health should collaborate and put more effort to improve time of services.

HSR 21 Factors affecting out-of-pocket expenditure on health in Thailand: Results from a two-part model

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OBJECTIVE

In 2002, Thailand implemented the Universal Coverage Scheme)UCS (that extended public insurance coverage to cover the entire Thai population . While out- of- pocket expenditure)OOPE (on health has decreased, the impact of the scheme on vulnerable groups such as households with children, disabled members and elderly people, has not been analyzed over a long time frame . Thus, this study aims to examine the trends and factors affecting OOPE of households with vulnerable groups in Thailand.

METHODS

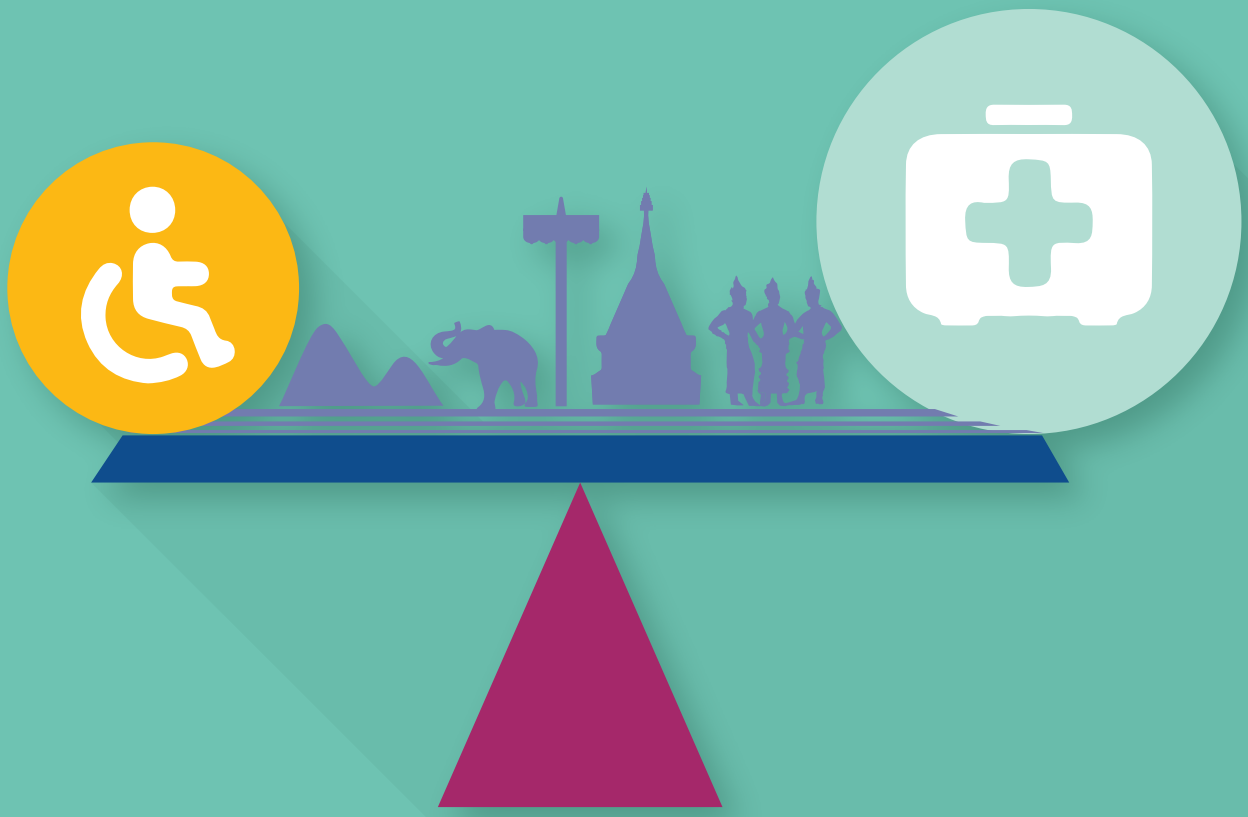
The study used household survey data from the Socio-Economic Survey)SES (conducted by the National Statistical Office)NSO (every other year from 1990 to 2015 .Variables on expenditure were identified, compared and combined across fourteen years. The sample was weighted and expenditure and income were adjusted for inflation . A two-part model was used to analyze the relationship between OOPE and household characteristics using a logit model for the first part and a generalized liner model)GLM(for the second part .

RESULTS

There was a decline in OOPE among all households after the introduction of UCS although, households without vulnerable groups were less likely to experience OOPE compared to households with at least one vulnerable group . Among households with vulnerable groups, households with elderly had a lower chance of experiencing OOPE while households with children were more likely to experience OOPE. The amount of OOPE was also significantly lower for households with at least one vulnerable group after UCS . For households with and without vulnerable groups, higher levels of education of the household head were associated with greater reductions in OOPE across income levels.

DISCUSSION AND CONCLUSIONS

This study shows that households with vulnerable groups require more attention for financial protection . Further analyses need to be conducted to inform the design and implementation of appropriate health benefit packages for household with vulnerable groups in Thailand.



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