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HEALTH TECHNOLOGY ASSESSMENT IN INDIA (HTAIn)



Newsletter

Editorial

We would like to announce that **Padma Shri Prof. Balram Bhargava** has joined Department of Health Research (DHR), Ministry of Health & Family Welfare (MoHFW) as new Secretary from April, 2018. Prof. Bhargava is a renowned cardiologist at All India Institute of Medical Sciences (AIIMS). He played a key role in establishing “Centre for Excellence for Stem Cell Studies”. He is also an evaluator of indigenous low-cost cardiac stents and has developed a Platinum-Iridium stent himself. We are confident that continuing with the overwhelming legacy of **Dr. Soumya Swaminathan** (DDG, WHO), **Prof. K. Vijayraghavan** (Principal Scientific Adviser to the Hon. Prime Minister) and **Smt. Preeti Sudan** (Secretary, H&FW) HTAIn will keep on flourishing under the dynamic and able leadership of Prof. Balaram Bhargava.

Establishing HTAIn in Department of Health Research (DHR) is to conduct evidence-based assessment of health technologies for their clinical and cost effectiveness and underlying equity issues to help the decision-making in healthcare. In this process transparency is the key. A rigorous screening of HTA topics, proposal and outcomes by the experts and reaching out to all the possible stakeholders ensures the process to be robust, transparent and create a sense of inclusiveness.

One of the major challenges in undertaking HTA studies in India is the lack of capacity especially in health economics. In order to bridge this gap HTAIn is undertaking a series of training programmes and workshops in collaboration with national and international partners. Moreover, School of Public Health, Post Graduate Institute of Medical And Education Research (PGIMER), Chandigarh that is one of the Regional Resource Hubs of HTAIn is conducting Online Courses in Basic Health Economics and Economic Evaluation

Message from the Hon. Minister of State (MoHFW)



अनुप्रिया पटेल
Anupriya Patel



सत्यमेव जयते



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स्वास्थ्य एवं परिवार कल्याण राज्य मंत्री
भारत सरकार
MINISTER OF STATE FOR
HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA


MESSAGE

Health Technology Assessment (HTA) is a form of policy research that examines short- and long-term consequences of the application of a health-care technology. Prime objective of HTA is to ensure value for money to the patients, efficient utilization of the resources and ensure that the actual benefit of innovations reaches to the patients. HTA can solve numerous medical queries and problems for example cardiovascular problems can be resolved by various techniques like reduction of stress at workplace, cessation of smoking or heart by-pass surgeries.

Recognizing the importance of HTA in health services design, management, and delivery of health system, the Government of India has established the Health Technology Assessment in India (HTAIN) with a view to providing the maximum utilization of health care benefits to people.

Our achievements in various fields like **life expectancy, infant & maternal mortality rate, accessibility of healthcare services in rural areas, intensive health campaigns, sanitation devices and increase in number of Government & private hospitals etc** are significant. Improvement in immunization coverage and literacy rate, have improved the overall health of the country. But, the factors like, less health insurance coverage, large number of population lying in the low income group and High bills of medical care for long term disease are of great concern. The majority of healthcare spending in India, is out of pocket (OOP) (82.2%), 74.7% of which is spent on medicines. Many patients in India have been forced below the poverty line due to healthcare expenditure. Set against this backdrop, only 3 – 5% of Indians are covered under any form of health insurance.

I am confident that HTAIN will be a transparent, effective and systematic and unbiased system, which will be able to accelerate the process of providing access to new research and development to the patients and lead to 100% utilization of existing resources.


(Anupriya Patel)

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Boosting Indian Healthcare

BY PROF. BALARAM BHARGAVA



Health care in India is largely financed through Out-of-Pocket (OOP) expenses which leads to the impoverishment of patients. Moreover, there are several equity issues regarding the availability and accessibility of health services. Health Technology Assessment in India (HTAI) has been established in Department of Health Research to guide public sector health financing at the national and state level through Health Technology Assessment (HTA). HTA will help in achieving maximum possible health in the limited financial resources available and in reducing OOP expenditure. It will also help to resolve ethical and equity issues regarding the use of any intervention. Establishing HTAI is a promising step towards improving Indian Healthcare System and taking India towards Universal Health Coverage.

Padma Shri Prof. Balaram Bhargava, Secretary, DHR (MoHFW) and DG, ICMR

National Health Protection Scheme and HTAI

BY PROF. K. K. TALWAR

The government of India has recently announced the new National Health Protection Scheme. This announcement automatically implies increasing the allocation for health sector and increasing the services that are offered. This would mean critical decisions on prioritizing health intervention, procedures, drugs, devices and programs which offer the best value for money of course ensuring optimum quality of care. Health Technology Assessment (HTA), is a widely used methodology internationally for optimisation of resource allocation in health. It is a multi-disciplinary field of policy analysis, which studies the medical, social, ethical and economic implication of development, diffusion and use of health technology. Health Technology Assessment (HTA), can help policy makers to effectively prioritise health interventions and services, improve their quality, make consistent decisions and reduce inappropriate variation.



”HTAI will evaluate available and new health technologies to provide quality healthcare at minimum cost to ensure the best health outcomes from the health budget.”

The inception of Health Technology Assessment Board (HTAB), in India is a welcome move in this regard. This board will be a central agency for steering Health Technology Assessment in India; and will evaluate available and new health technologies to provide quality healthcare at minimum cost to ensure the best health outcomes from the health budget. It will also be instrumental in facilitating transparent and evidence informed policy making for the Government. I personally see the value of Health Technology Assessment (HTA), in setting standard treatment guidelines and pricing for drugs, diagnostics and devices which could help in address the problem of rising cost of care on the pattern of the National Institute for Health and Care Excellence (NICE).

Padma Bhushan Prof. K. K. Talwar, Ex-Director of Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh.



Stakeholders

HTA In 1st HTA Report on Safety Engineered Syringes (SES) for Therapeutic Care in India

BY DR. SHANKAR PRINJA

Globally, 16 billion injections are administered each year of which 95% are for curative care. India contributes to 25-30% global injection load. Over 63% of these injections are reportedly unsafe or deemed unnecessary. While the Government of India (GoI) introduced auto-disable (AD) syringes for immunization in 2008, its use is not mandated in the therapeutic sector which constitute the bulk of injection use. Till date in India, disposable syringes are used for therapeutic care with potential of unsafe use both in terms of reuse by healthcare providers and causing needle stick injuries (NSI) to healthcare providers.

”There is a 93% probability for RUP to be cost effective at a willing to pay threshold of gross domestic product (GDP) of India.”



Reuse and NSI both leads large-scale transmission of blood borne infections (BBIs) among patients. It is estimated that each year approximately 33% of new Hepatitis B viral (HBV) infections and 42% of Hepatitis C viral (HCV) infections (2 million new infections) are attributable to the unsafe medical injections in developing nations. Similarly, the unsafe injection practices accounts for 9% of new HIV cases in South Asia. Secondly, there is a risk of transmission of BBIs to healthcare professionals (HCPs) in case of adverse event of needle stick injuries (NSI).

Recently, some state governments – for instance Punjab state, have shown an interest in evaluating introduction of SES in therapeutic sector. An important mandate for the expert group, which has been set up to consider introduction of SES, was to provide evidence on its cost-effectiveness. Moreover, the National Pharmaceutical Pricing Authority (NPPA), requested HTA In to provide economic evidence on different forms of SES. As a result, a HTA was commissioned and assigned to ‘HTA Resource Hub’ at Postgraduate Institute of Medical Education and Research, Chandigarh, India. Three SES were evaluated – reuse prevention syringe (RUP), sharp injury prevention (SIP) syringe, and those with features of both RUP and SIP. A report of this HTA was disseminated during the “2nd National Conference on Health Technology Assessment” held on 24th-25th February, 2018 at School of Public Health, PGIMER, Chandigarh

Overall the analysis showed that introduction of RUP, SIP and RUP+SIP syringes in India will incur an incremental cost of INR 40,358, INR 6,743,277 and INR 196,021 per QALY gained, respectively. There is a 93% probability for RUP to be cost effective at a willing to pay threshold of gross domestic product (GDP) of India. While SIP is not cost-effective, there is only 23% probability for RUP+SIP to be cost-effective at a willing to pay threshold of 1-time GDP per capita. RUP syringe will become cost saving at a unit price of INR 1.9. The SIP and RUP+SIP syringes are cost-effective only at a unit price less than INR 1.8 and INR 5.9, respectively.

Dr. Shankar Prinja, Renowned Health Economist and Additional Professor, School of Public Health, PGIMER, Chandigarh.

Estimation of Hemoglobin in the field setting: which method is the best?

BY DR. RENU SAXENA AND DR. SUTAPA B. NEOGI

Anemia is a serious public health problem in India. Anemia in young children can result in impaired cognitive performance, behavioral and motor development, coordination, language development and scholastic achievement, as well as increased morbidity from infectious diseases. Anemia among pregnant women results in premature delivery, low birth weight, prenatal mortality and maternal mortality.

It becomes important to diagnose anemia at an early stage to prevent future complications. Assessment of Hemoglobin (Hb) is the first step in investigating anemia. When laboratories are not available, anemia is diagnosed based on clinical signs. In communities where detection and treatment of anemia is most beneficial, and a good laboratory set up is not available, alternative method, less expensive and reliable is needed. Several methods are available for estimation of Hb. These have been reported to be piloted in small settings with encouraging results. However, for the purpose of screening at the national and state levels, Our study proposes to establish the diagnostic accuracy of some such devices that are available in India against automated analyzers (gold standard) for screening of anemia in laboratory and community settings. The reference test i.e Gold standard (Hematological Autoanalyzers) are available in most Medical Colleges. These are expensive equipment, that require good maintenance and not suitable for field settings. The other devices include TrueHb, HemoCue, Non invasive devices like Touch Hb, non invasive spectroscopic device and Masimo non- invasive pulse oximetry.

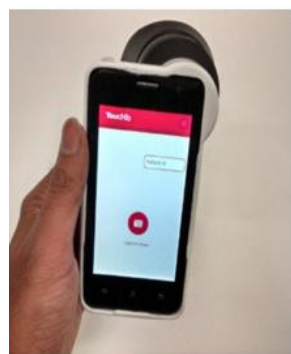
True Hb which is based on the principle of reflectance photometry. One drop of blood is put on the strip which is fed into the hemoglobinometer to obtain digitalized Hb values. It reads the accurate level within 45 seconds, and also stores up to 1,000 such readings.



a



b



c



d



(e) Non-invasive Spectroscopic Device

”Our study proposes to establish the diagnostic accuracy of some such devices that are available in India against automated analyzers (gold standard) for screening of anemia in laboratory and community settings.”

Comparators: (a) True Hb (b) HemoCue (c) Touch Hb (d) Masimo Non- Invasive Pulse Oximetry

It can be charged like a mobile phone and allows up to 300 tests per charge. HemoCue consists of a pre-calibrated portable battery operated spectrometer with calibrated analyzers. The analyzer uses a double wavelength measuring method, 506 nm and 880 nm, for compensation of turbidity. It doesn't need any further calibration and gives results in 10 seconds. TouchHb Version captures the picture of conjunctiva with the help of a mobile camera and uses the method of reflectance photometry to estimate the Hb content in blood in grams per deciliter. It quantifies the pallor in the eye to estimate Hb in grams per deciliter of blood. Non invasive spectroscopic devices based on the measurement of the spectroscopic signal emanating from the vascular bed of the bulbar conjunctiva. The collected spectral response generated in the spectrograph is transferred to a tablet computer through a USB connection where it is processed using custom developed LabVIEW software.

It is compatible with mobile phone platforms for data transcribing which facilitates quick development of treatment plans. Masimo non - invasive pulse oximetry features Masimo SET® Measure-through Motion and Low Perfusion™ pulse oximetry with the option to measure multiple additional parameters.

Dr. Renu Saxena, Professor & Head, Department of Hematology, All India Institute of Medical Sciences (AIIMS), New Delhi

Dr. Sutapa B. Neogi, Additional Professor, Indian Institute of Public Health-Delhi, Public Health Foundation of India (PHFI)

Meetings Organized

- The 7th TAC meeting was held on 5th April, 2018 under the Chairmanship of Prof. T. Sundaraman, School of Health Systems Studies, Tata Institute of Social Sciences (TISS), Mumbai, to discuss the proposals on HTA for Universal Neonatal Hearing Screening Program using 'Sohum' Hearing Screening Device in India (by RMRC, Bhubaneswar), HTA for Hypothermia Detection Devices (BEMPU and ThermoSpot) for Premature Low Birth Weight Neonates in India (by IIPH-Shillong), HTA for Screening of Type 2 Diabetes & Hypertension in India (by PGIMER-Chandigarh) and Costing of Health Services in Different Healthcare Facilities From Different States of India. (by DHR secretariat and PGIMER Chandigarh)



Technical Appraisal Committee Meeting at DHR, 5th April 2018



Stakeholder Consultation Meetings at DHR, 6th April 2018

- A Stakeholder Consultation Meetings was held on 6th April, 2018 at DHR under the chairmanship of Shri V.K. Gauba, Joint Secretary, DHR, MoHFW to discuss the HTA proposal of BEMPU and SOHUM with the stakeholders. The meeting was broadcast Live to Regional Resource Hubs and Technical Partners. Government officials, clinical experts, Representatives from manufacturing companies, WHO, NGO etc. attended the meeting and exchanged their views and appreciated the establishment of HTAI and its proceedings.
- A "Working Group Meeting" was held on 3rd May, 2018 at National Health System Resource Center (NHSRC) chaired by Dr. Rajni Ved, Executive Director, NHSRC to discuss proposal of Breast Cancer Screening



Working Group Meeting at NHSRC, 3rd May 2018

Workshops and Conference

PGIMER 7TH INTERNATIONAL FELLOWSHIP AND NATIONAL CONFERENCE ON HTA



Dignitaries releasing the SES Outcome Report, 24th February, 2018

The School of Public Health, Post Graduate Institute of Medical Education and Research (PGIMER) Chandigarh organized the 7th International Fellowship on Health Technology Assessment (HTA) from February 19th-23rd, 2018, with the prime objective of building capacity among researchers for undertaking HTA in India. The program was organized in collaboration with Department of Health Research, Ministry of Health and Family Welfare, Government of India; World Health Organization; National Health Systems Resource Centre; Centre for Health Economics, University of York, United Kingdom and International decision support Initiative (iDSI).

Shri Kumar Abhay, Financial Advisor at PGI, inaugurated the programme. The fellowship programme included presentations by Dr. Shankar Prinja, Additional Professor of Health Economics and Organizing Secretary, Prof. Karl Claxton globally renowned health economist from the University of York, United Kingdom and other eminent speakers from partner institutes. Further there were discussions and hands on training on various methodological aspects of HTA such as clinical effectiveness through systematic reviews, cost-effectiveness analysis, addressing uncertainty, equity considerations of new medical technologies, devices, health interventions and programs. The programme was concluded by a valedictory function, where in Prof. Rajesh Kumar, Dean (Academic) PGI highlighted the importance of developing capacity for health economics and public health in India.

The fellowship programme was followed by a two-day National Conference on Health Technology Assessment held on 24th and 25th February, 2018. Prof. KK Talwar, chairman of the Health Technology Assessment Board, DHR, inaugurated the conference.

The conference covered important aspects like use of cost-effectiveness analysis to improve the efficiency of public health sector, value-based pricing for drugs and devices, practical application of economic evidence in clinical decision-making and how HTA can serve as a policy tool for evidence -informed and transparent decision-making in India.

About twenty five participants from varied backgrounds ranging from public health professionals, health economists, statisticians, clinicians, hospital administrators, scientists, pharmacists participated in the fellowship program, while nearly 300 national and International delegates comprising of senior policy makers, academicians, researchers, health program managers, students from various medical, public health and pharmacy colleges attended the conference. Health professionals from development agencies like World Health Organization, Gates Foundation, GIZ, IPE Global and private pharmaceutical and medical device manufacturers also attended the conference.

The conference has significant importance in view of the Government of India's recently announced National Health Protection Scheme, which would translate in terms of increased money for health care and also increased purchasing of health care from health care providers. This would mean prioritizing on health intervention, procedures, drugs, devices and programs which offer the best value for money. Health Technology Assessment (HTA) is a promising tool to evaluate various drugs, health interventions, technologies and devices in terms of health benefits, value for money, as well as social, ethical and other policy considerations. It will play an important role in priority-setting in the advent of universal health coverage in India.



Participants attending the Workshop, 19-23rd February 2018

CONFERENCE ORGANIZED AT RMRC, BHUBANESWAR

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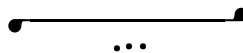
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11-13th January, 2018



24-26th January, 2018



Health Technology Assessment in India (HTAI)

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