Health Technology Assessment (HTA): A Tool for Evidence-Informed Decision Making in health

Technical Meetings – Session 1

62nd Session of the WHO Regional Committee for the Eastern Mediterranean

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Presentation Outline

I. What is HTA?

II. Impact of HTA in EMR

III. How to implement HTA?

IV. You will never walk alone
PART I: What is HTA?
What is a Health Technology (HT)?

• WHO experts define HT as;
  “The application of organized knowledge and skills in the form of devices, medicines, vaccines, procedures and systems developed to solve a health problem and improve quality of lives”.

• This definition also encompasses traditional medicine, health promotion & prevention activities and information systems.

[World Health Organization logo]
HTA is..

• A multi-disciplinary activity that examines the direct/indirect effect of HT on:
  – Available Resources
  – Cost & Cost-effectiveness
  – Technical Aspects (ex. safety & efficacy)
  – Other Aspects (ex. legal & ethical issues)

• HTA goal is to
  – Provide input to decision-makers
  – Ensure value for money
1. What is HTA?

- Can it work in my country?
- Is it safe and of good quality?
- Do we really need it?
- How can we use it effectively?

HTA Reasoning

- Safety
- Efficacy
- Effectiveness
- Appropriateness
- Implementation

Health Technology Assessment

Regulation

World Health Organization

Regional Office for the Eastern Mediterranean
HTA Multidisciplinary Team

• It is composed of different backgrounds (clinicians, public health specialists, pharmacists, clinical engineers, epidemiologists, statisticians, etc.).

• Roles and responsibilities includes:
  • Active engagement of all key stakeholders groups.
  • Revision of evidence related to selected technologies.
  • Conduction of assessment studies and surveys (if needed).
  • Consultations with external experts (if needed)
  • Communication of findings to decision makers
  • Production of different types of reports (from mini and quick reports to broad and extensive ones)
PART II: What is the impact of HTA
# HTA for UHC: The Benefit Package Development in Thailand

## Health Interventions, Cost/QALY, and Coverage

<table>
<thead>
<tr>
<th>Health Interventions</th>
<th>Cost/QALY ($/Yr)</th>
<th>Covered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxaliplatin (FOLFOX) for treatment of advance colorectal cancer</td>
<td>3,500</td>
<td>Yes</td>
</tr>
<tr>
<td>Galantamine for treatment of mild-to-moderate Alzheimer’s disease</td>
<td>4,400</td>
<td>No</td>
</tr>
<tr>
<td>Imiglucerase for treatment of Gaucher disease type 1</td>
<td>17,500</td>
<td>Yes</td>
</tr>
<tr>
<td>Recombinant Human Erythropoietin (rHuEPO) treatment in chemotherapy-induced anemia</td>
<td>19,800</td>
<td>No</td>
</tr>
</tbody>
</table>
HTA and Price Negotiations: The Thai Experience

In Thailand:
HTA uses <0.01% of health budget, and results in >$100 million/year savings from price negotiations alone.

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Original price (THB)</th>
<th>Reduced price (THB)</th>
<th>Potential saving (THB per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxaliplatin (injection 50 mg/25 ml)</td>
<td>8,000</td>
<td>2,500</td>
<td>152 million</td>
</tr>
</tbody>
</table>
HTA and Investment Decisions: The Iranian Experience

- **Devices**
  - Positron Emission Tomography (PET) Scanners
  - 3-Tesla Magnetic Resonance Imaging (MRI)
  - CT Scan 64 slice (single and dual)
  - Femto-second laser

- **Procedures**
  - Immune Tolerance Induction method for treatment of Hemophilia in children

- **Drugs**
  - Exemestane for treating breast cancer
  - Pregabalin for neuropathic pain management
PART III: Situation of HTA in EMR
Mapping HTA in EMR (2014):
Survey Structure

III. HTA in EMR

General Information

Are you performing HTA?

Yes

Part A
Nature of HTA activities

Part B
Usage and Dissemination of HTA reports

Part C
Tools & Methodologies

No

Part D
Plans for Establishing HTA unit & activities

(N=51 from 15 MS representing academic institutions, regional experts, and MOH HT focal points)
Mapping of EMR HTA (2014): 
Survey Results

- 52% perform HTA or HTA-like activities
  - Most activities were related to clinical effectiveness and economic evaluations (67% and 62% respectively);
  - Performed on devices and medicines (79% and 68% respectively).
  - HTA reports were on healthcare costs and selection of appropriate technologies (60% and 50% respectively)

- Remaining 48% (not performing HTA-like activities)
  - Over 50% do not know if there are future plans to develop HTA programmes in their national entities.
  - Almost 75% indicated that using HTA in the decision-making process will be their biggest obstacle.
PART IV: How to implement HTA?
Start Small..

IV. Implementing HTA

HTA Knowledge Mobilizer

1-2 persons

Putting HTA into Context

4-5 persons

HTA Committee

4-5 persons

HTA Unit/Agency

>9 persons

Dedicated Resources

HTA System
Where should HTA be at national level?

- Regulatory Approval (NRA)
- Regulation Chamber Pricing Review
- Market Entry
- HTA Agency Evaluation
- MOH P&R Decision
- Physician Usage
- HTA Agency Re-Evaluation

No HTA Influence
Foreign HTA reports on effectiveness
Limited HTA Influence
Key HTA Step
Based on HTA reports
Indirectly Influenced by HTA reports
Key HTA Step
PART V: You will never walk alone
Is HTA for Developed Countries ONLY?

• In contrast to what most officials think; the less the resources, the more the need for HTA to
  • Make rational decisions on investments
  • Prioritize needs on the basis of evidence
  • Estimate cost vs. efficacy/effectiveness ratios of new and emerging technologies
WHO and HTA

• In 2012, RC resolution requested WHO to support MS in building national capacities to perform HTA
• 1st IC Meeting in Tunisia in November 2013 – Roadmap for developing HTA at national level
• In 2014, WHA resolution 67.23 called upon MS to develop national HTA systems to support UHC
• 2nd IC meeting in Cairo in December 2014 – A Regional HTA network platform – Guidelines on establishing HTA programmes
Progress made so far..

- **Iran:**
  - Only MS with established HTA agency. Still needs strengthening.

- **Tunisia:**
  - INASanté: Conducted Stakeholder Analysis and became a candidate member of INAHTA

- **Egypt:**
  - Part of the MOU on Health Technology Management (Sponsored by GE foundation and World Bank)

- **Jordan:**
  - Named the Directorate of Biomedical Engineering as the HTA focal point to start the process

- **Qatar:**
  - High-level Consultancy requested
EM Regional Network on HTA

- Hosted by EMRO on EZCollab platform
- Comprises HTA advocates, champions from 22 MS in EMR and international experts
- Members reached 100 (including countries from South-East Asia).
- Members pose queries, request consultancies, exchange news and resources, etc.
- Contains a library of references, technical documents, presentations, videos, etc.
Health Technology Assessment (HTA) has become an important tool for informed decision-making by Ministries of Health. It is one of the new approaches in determining cost-effective evaluation of health technologies, in support of the provision of quality health service delivery. The definition of HTA may vary depending on the context of its use, but most definitions are in line with the one stating that "HTA is the systematic evaluation of properties, effects, and/or impacts of health care technology," which includes a multidisciplinary process that encompasses information about the medical (clinical), social, economic, organizational, and ethical issues related to the use of a health technology (such as drugs or medical devices and procedures) in a systematic, transparent, unbiased, robust manner. It aims to inform the formulation of safe, effective, health policies that are patient focused and seek to achieve best value.2 It is called "HTA information" or "HTA product" which is commonly used, is then a piece of information generated from an HTA (e.g., clinical effectiveness of a drug in a population or organizational consequences of introducing a device into health care).
Future Steps and Commitments

• From Member States
  – Accept HTA as a tool for decision making on investments made in HT
  – Have a strong political commitment
  – Establish national HTA units and working towards their independence of management procedures (including conflicts of interest)
  – Consider HTA as part of a transparency and accountability framework
Future Steps and Commitments (Cont.)

• From WHO
  – Provide technical assistance in
    • organizing a stakeholder analysis meeting
    • establishing independent national HTA units
    • developing clear communication policy of HTA reports and recommendations
  – Enhance knowledge and skills of national HTA-related staff
  – Facilitate collaboration with national, regional and international organizations and networks
A more detailed version of this presentation can be downloaded from RC62 official website

(http://applications.emro.who.int/docs/media/Presentation_Dr_Adham_Ismail_RC62_2015_EN.mp4)