HTA and Patient Registries

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Health Technology Assessment

- ✓ Since available resources are limited, delivering health services involves making decisions.
- ✓ Decisions are required on what interventions should be offered, the way the health system is organized, and how the interventions should be provided.
- ✓ Decision-makers thus need information about the available options and their potential consequences.

"Health technology assessment. An introduction to objectives, role of evidence, and structure in Europe". Velasco-Garrido M, Busse R. Copenhagen, WHO Regional Office for Europe, 2005 (European Observatory on Health Systems and Policies policy brief series)

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Health Technology Assessment

- ✓ **HTA** is the process of systematically **reviewing existing evidence** and providing an **evaluation** of the **effectiveness, cost-effectiveness and impact**, both on patient health and on the health care system, of health technology and its use

Key-words:
Systematic ,
Transparent,
Unbiased,
Robust,
Multidisciplinary

Health technology *is the practical application of knowledge to improve or maintain individual and population health: Drugs, Biologics, Devices, equipment and supplies, Medical and surgical procedures, Public health programs, Support systems, Organisational and managerial systems.*

- ✓ HTA aim is **to inform the formulation of safe, effective, health policies** that are patient focused and seek to achieve best value.

EUnetHTA Network (http://www.eunethta.eu/)

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Which role for HTA?

- ✓ Facilitate planning for the introduction and diffusion of new technologies
- ✓ Provide a basis for informed decisions about the purchase and use of health technologies
- ✓ Encourage the appropriate use of health technologies
- ✓ Pricing and reimbursement

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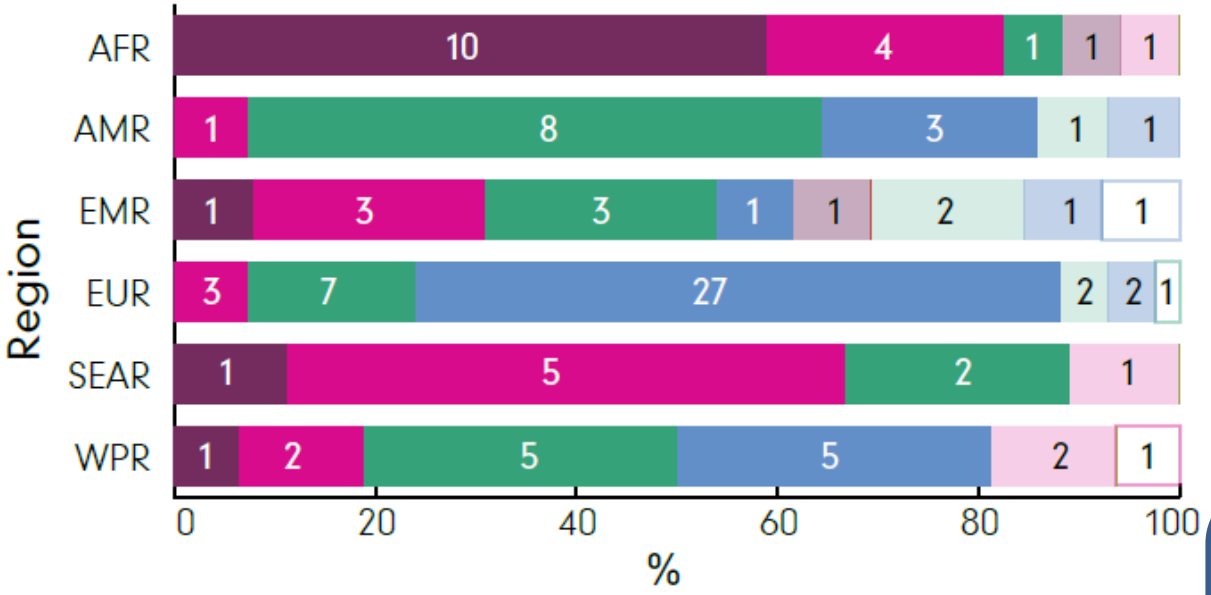
HTA & decision-making process



Number and proportion of countries that responded, having a formal process for information compilation for decision making, by region and country income

… The responses suggest that high- and upper middle-income countries, especially in EUR and AMR, were most likely to have this formal HTA process.

WHO regions: African (AFR), Americas (AMR), Eastern Mediterranean Region (EMR), European Region (EUR), South-East Asia Region (SEAR), Western Pacific Region (WPR)

WHO 2015 Global Survey on Health Technology Assessment by National Authorities. Main findings

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HTA & EMA

1. **The EMA has been working closely with HTA bodies since 2008**. Regional and national HTA bodies provide recommendations on medicines and other health technologies that can be financed or reimbursed by the healthcare system in a particular Member State or region. Recently, they have been gaining a greater influence on the access of novel medicines to patients, mainly due to increased pressure on healthcare budgets
2. The Agency recognises that **some new medicines that receive marketing authorisation fail to be reimbursed or used as expected**. A close interaction between regulators, HTA bodies and other relevant bodies is critical to enable patients' access to important new medicines and hence for the benefit of public health. This aims to reduce developmental resources, by re-shaping and focusing medicine development programmes to generate data relevant for regulators, HTA bodies and other stakeholders
3. The first **joint EMA-EUnetHTA project** responded to a political recommendation to consider how the assessment of the benefits and risks of a medicine contained in European public assessment reports (EPAR) can best be used to inform the assessment of the relative effectiveness of new medicines for HTA purposes in EU Member States

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HTA & EMA

Adaptive pathways approach (adaptive licensing) to improve timely access for patients to new medicines *(pilot phase ended):*

- ✓ It is a scientific concept for medicine development and data generation which allows for **early and progressive patient access to a medicine**. Based on the existing EU regulatory framework for medicines.

Adaptive pathways is based on three principles:

- ✓ **iterative development**, which either means:
  - approval in stages, beginning with a restricted patient population then expanding to wider patient populations;
  - confirming the benefit-risk balance of a product, following a conditional approval based on early data (using surrogate endpoints) considered predictive of important clinical outcomes;
- ✓ **gathering evidence through real-life use** to supplement clinical trial data;
- ✓ **early involvement of patients and HTA bodies** in discussions on a medicine's development

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HTA & EMA

Following the end of the pilot phase, EMA will explore the adaptive pathways concept further in the context of **PARALLEL SCIENTIFIC ADVICE with HTA bodies**:

- A procedure aiming to allow medicine developers to gain **feedback from regulators and HTA bodies at the same time**, at any point in the developmental lifecycle of medicines. This helps them **to establish the evidence** that both parties will need to determine a medicine's benefit-risk balance and value as efficiently as possible

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HTA & EMA

EUROPEAN MEDICINES AGENCY

Parallel EMA HTA scientific advice- why

- Aim - generate data that meets needs of all stakeholders as efficiently as possible – preferably in one trial design/ one development plan. Avoiding excess burden on patients.
- Prevent avoidable/methodological reasons for failure later.
- Without layering on additional requirements.
- Understand views/needs of each others and the divergences.
- To find the solutions/third way.
- Not forcing agreement and adhere to remits.

Regulatory point of view on clinical benefit assessment and parallel EMA/HTA advice

11 Regulatorypoint of v

Ateliers de Giens Meeting - French Society of Pharmacology and Therapeutics - Paris, March 23rd 2016

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HTA & EMA

PDCO work plan 2016. Addressing the needs of special populations - Key objectives:

- ✓ Ensure that the needs of the paediatric population are systematically considered in the medicinal products development, assessment and monitoring of their use:
  - Support the continuity of the paediatric safety and efficacy assessment throughout the lifecycle of medicines;
  - Facilitate seamless provision of relevant information from the regulatory assessment to HTA bodies for relative effectiveness assessments.

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HTA & EMA

PDCO work plan 2016

Parallel Scientific Advice Working Party (SAWP) / HTA scientific advice:

- ✓ SAWP/HTA scientific advice offers an option to drug developers wishing to construct a drug development programme that is able to address the different needs of regulators, health technology appraisals and reimbursement considerations in the most efficient manner possible

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HTA and Regulators

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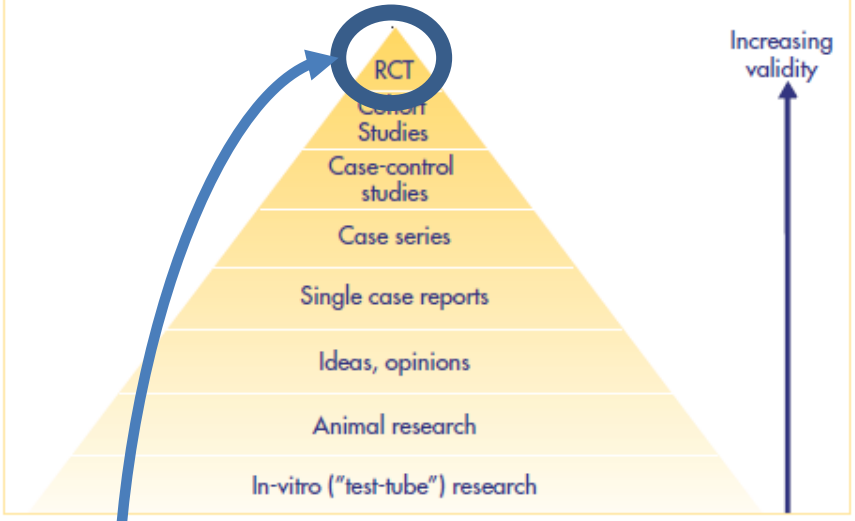
HTA & Data

Figure 1: Hierarchy of research designs for evidence-based medicine (based mainly on internal validity)



RCTs: efficacy and safety of medical therapies in experimental conditions

REAL WORLD DATA assume greater relevance when one considers the differences between study populations of clinical trials and people who take the same drug in real life conditions, and the changes that happen over time with the acquisition of new evidence on drugs and treatments

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HTA and Patient Registries

- ✓ Properly designed and executed, **PATIENT REGISTRIES** can provide a real-world view of clinical practice, patient outcomes, safety, and comparative effectiveness:
  - to observe the course of disease;
  - to understand variations in treatment and outcomes;
  - to examine factors that influence prognosis and quality of life;
  - to describe care patterns, including appropriateness of care and disparities in the delivery of care;
  - to assess effectiveness;
  - to monitor safety and harm;
  - to measure quality of care;
  - to study quality improvement.

[Registries for Evaluating Patient Outcomes: A User's Guide. 3rd edition. AHRQ Agency for Healthcare Research and Quality]

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HTA and Patient Registries

From the HTA point of view, registries can be used to:

- ✓ Evaluating patient outcomes including patient reported outcome measures (PROMs)
- ✓ Providing cost effectiveness data
- ✓ Providing safety information e.g. side effects and adverse events
- ✓ Providing data on the natural history of a disease or outcomes using current best available treatment
- ✓ Facilitating the recruitment of an adequate sample size
- ✓ Facilitating the use of case control methodologies
- ✓ Providing the infrastructure for post licencing studies
- ✓ Assessing the dissemination of outcomes from the HTA process

[Patient registries in Ireland]

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Patient Registries

PATIENT REGISTRIES are organised systems that use observational methods to collect uniform data on a population defined by a particular disease, condition, or exposure, and that is followed over time.

Patient registries can play an important role in monitoring the safety of medicines.

The EMA has set up an initiative to make better use of existing registries and facilitate the establishment of high-quality new registries if none provide adequate source of post-authorisation data for regulatory decision-making

[Initiative for Patient Registries, 2015]
(www.ema.europa.eu/ema/index.jsp?curl=pages/regulation/general/general_content_000658.jsp)

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Patient Registries

Thalassemia Reports 2014; volume 4:4875

pagepress

Comorbidities at baseline

Multidisciplinary care in haemoglob

Adriana Ceci,[1,2] Laura Mangiarini,[1] Fedele B
HTA-THAL Multiregional Registry

[1]Consorzio per Valutazioni Biologiche e Farma

Table 5. Patients' satisfaction with services.

Patient Satisfaction	Yes	No
Comprehensive approach at centres level	27%	73%
Services integration at local level		
Nursing	40%	60%
Medical	18%	82%
Social	42%	58%
Patients associations integration	40%	20%
New therapies informations	34%	26%
Research funds	25%	35%

Table 3. Cost of the care and hepatitis C.

	With hepatitis						P
Transfusion ser							
ICT							
Additional visit /							
Additional Drug							
New clinical eve							
Total							

Table 4. Instrumental Iron Overl

Iron monitoring	< 6 yr (N=51					2)	P
Hepatic MRI	7 (13.7%						<0.001
Hepatic SQUID	6 (11.8%)	20 (25.0%)	13 (12.1%)	13 (5.8%)	33 (4.3%)	3 (4.6%)	112 (6%)	<0.001
Cardiac MRI	6 (11.8%)	25 (31.3%)	56 (52.3%)	137 (60.9%)	756 (58.5%)	55 (50.9%)	1035 (55.9%)	<0.001
Hepatic and cardiac MRI	6 (11.8%)	18 (22.5%)	49 (45.8%)	128 (56.9%)	716 (55.9%)	53 (49.1%)	970 (52.4%)	<0.001

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worldwide. F
there is a new challenging mission for the TF.

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Patient Registries

New Complications Pattern and burden of the disease in patients affected by beta-thalassemia major

F. Bonifazi, R. Conte, P. Baiardi, D. Bonifazi, M. Felisi, P. Giordano, V. Giannuzzi, A. Iacono, R. Padula, A. Pepe, MC Putti, L. Ruggieri, G.C. Del Vecchio, A. Filosa, A. Maggio, A. Ceci, on behalf of the HTA-THAL Multiregional Registry (*under final revision*)

… the presence of cardiovascular diseases was lower than expected

… very high frequency of the observed osteoporosis and

A relevant complications' group is represented by ipogonadism

… 71.4% of patients with endocrine disease were affected by

We have observed a relatively high number of thrombotic complications that are considered more common in thalassemia intermedia than in regularly transfused thalassemia major (Panigrahi I, 2007) thus the number observed in our series should be considered and discussed

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Patient Registries

Taylor & Francis

Hematology

ISSN: 1024-5332 (Print) 1607-8454 (Online) Journal homepage: http://www.tandfonline.com/loi/yhem20

The Italian Multiregional Thalassemia Registry: centers characteristics, services and patients' population

R. Conte, L. Ruggieri, A. Gambino, F. Bartoloni, P. Baiardi, D. Bonifazi, F. Bonifazi, M. Felisi, V. Giannuzzi, R. Padula, A. Pepe, M.C. Putti, G.C. Del Vecchio, A. Maggio, A. Filosa, A. Iacono, L. Mangiarini & A. Ceci

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Concluding, this analysis confirms the utility of PATIENT REGISTRIES for the collection of large set of data. In particular, the considerations derived from this data set highlight how the use of large, well-monitored PATIENT REGISTRIES can guide Health Authorities and Health providers to plan cost-effective services and to meet patients' needs and expectations.

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HTA and Patient Registries

- ✓ Pharmacoeconomic evaluations and market analysis/budget impact analysis have been progressively included in EC research programmes as well as effectiveness research:
  - FP7 (DEEP, CloSed, GAPP, …)
  - H2020 PHC 6 – 2014: Evaluating existing screening and prevention programmes "*… need systematic evaluation for their impact on health outcomes, cost effectiveness and health equity*"
  - H2020 PHC 18 – 2015: Establishing effectiveness of health care interventions in the paediatric population *"… Effectiveness research in children and adolescents is required which is targeted, designed, conducted, and reported in ways that include clinically important differences in the type and course of disease in children*"

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Thank you.

This presentation reflects only the author's views and the Union is not liable for any use that may be made with the information contained therein.

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