Introduction to HTA and the HTAR

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Where are we in the product lifecycle?

Research and discovery → Clinical trials → Regulatory → HTA → National use

Decision-making in healthcare

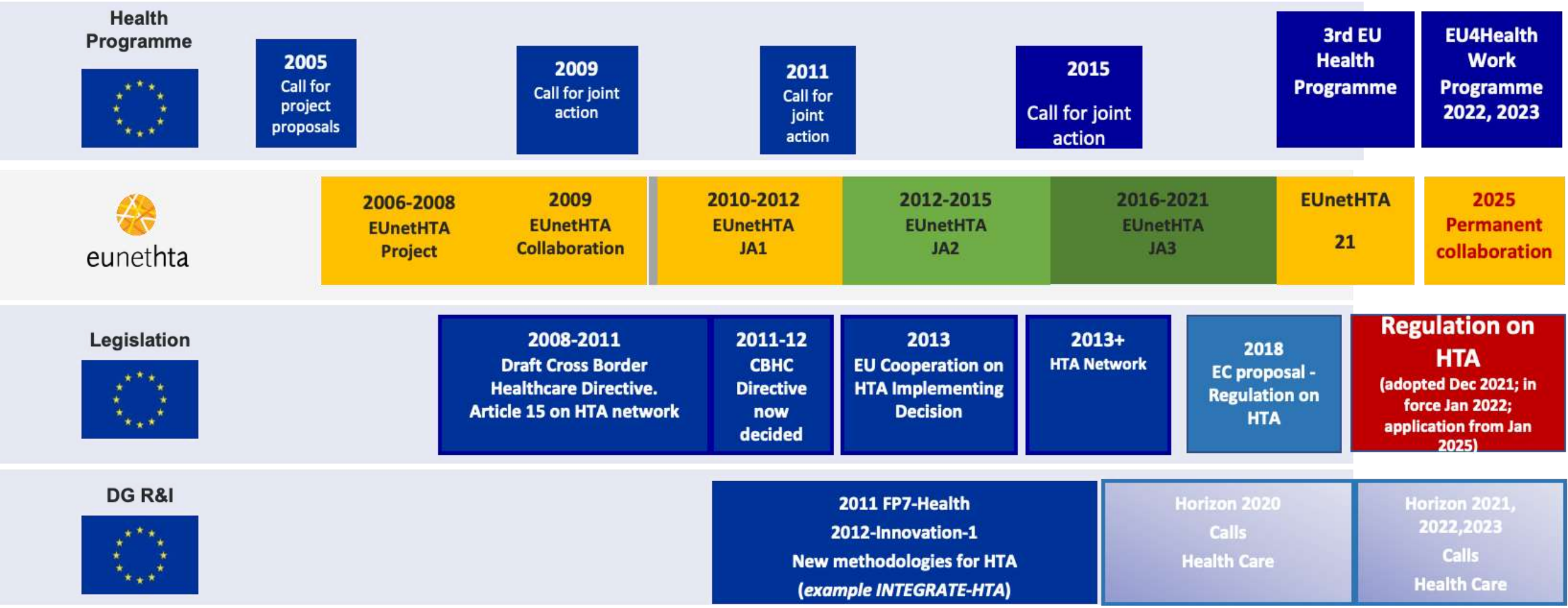
- In health, decision-makers (Ministry of health, health insurance funds, hospital management boards, etc.) cannot purchase, use and reimburse all new technologies for prevention, diagnosis, treatment, and rehabilitation of disease
- They have to make a choice and decide whether a new health technology brings **added value** to standard of care/current treatment
- **Investment and disinvestment decisions should be well informed and evidence-based**

HTA 1.01 – A bridge between research evidence and health policies

- Policymakers need a tool that provides them with the **best available evidence to inform decision-making** and **develop guidance on the reimbursement** and administration of new health technologies
- They need **Health Technology Assessments (HTAs)**
  - A multidisciplinary approach that **compares new technologies with an already existing one** (or the standard of care) to assess whether it is more effective, equally effective, or less effective
    - **Dimensions of value:** clinical effectiveness, costs and economic implications, ethical, social, cultural and legal issues, organisational and environmental aspects, as well as wider implications for the patient, relatives, caregivers, and the population

- HTA processes in the EU are fragmented: **each Member State conducts its own evaluations**, leading to duplicated efforts, inconsistent outcomes, and delays in patient access to innovative therapies
- The introduction the new HTA Regulation (HTAR) has changed/will change this dynamic, streamlining the HTA process across the European Union, although some competences (such as the decision on whether or not to reimburse a new technology) will remain a national prerogative

A long European history to get there



The HTAR in practice

New product comes in

EMA evaluation and approval

Released on the market

European HTA Cooperation

✓Countries will share (part of) work and expertise

EUROEPAN LEVEL

NATIONAL LEVEL

Analysis of the available evidence on relative effects

Conclusion on benefit and use in the population

Recommendation on reimbursement

How much are we willing pay?

Price Negotiation

Patient access

Industry submits a dossier for a EU HTA

EU HTA Report (Joint Clinical Assessment)

EUROEPAN LEVEL

NATIONAL LEVEL

Conclusion on benefit and use in the population

Recommendation on reimbursement

National HTA (final) Report

MEMBER STATES ARE OBLIGED TO

1. **Annexe the EU Report** in National HTA Report
2. **Share their final national HTA** with the EU Cooperation, **within 30 days** from its completion
3. **Inform about how they used the EU Report (**EC will publish an overview)
4. **National level can't request any evidence already submitted at EU level** (and the developer cannot submit evidence already submitted)

(if **later in time** they request/receive **new evidence at national level** in the scope of the published EU Report) **MS must share all with the EU cooperation**

The HTAR Cooperation's structure

Obligations

- **Work plan**
- **Annual Report**
- **Drive and endorse work >**

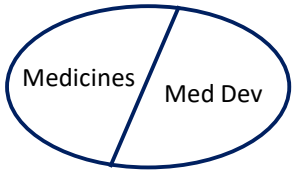
> Sub-Groups

Stakeholder Network

- Patient Organisations
- Health Professionals
- Consumer organisations
- Health NGOs
- Industry Associations

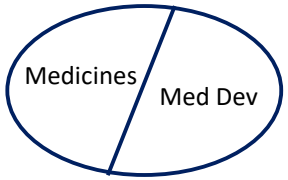
Article 29

Joint Clinical Assessment



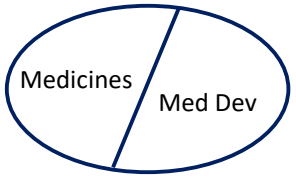
JCA Report & Summary Report

Joint Scientific Consultation (Scientific Advice)



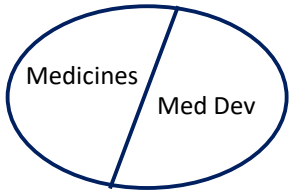
Advice/ Report

Horizon Scanning



Report

Methods



Guidelines

Others

VOLUNTARY COOPERATION

Secretariat

Art. 15 & 28

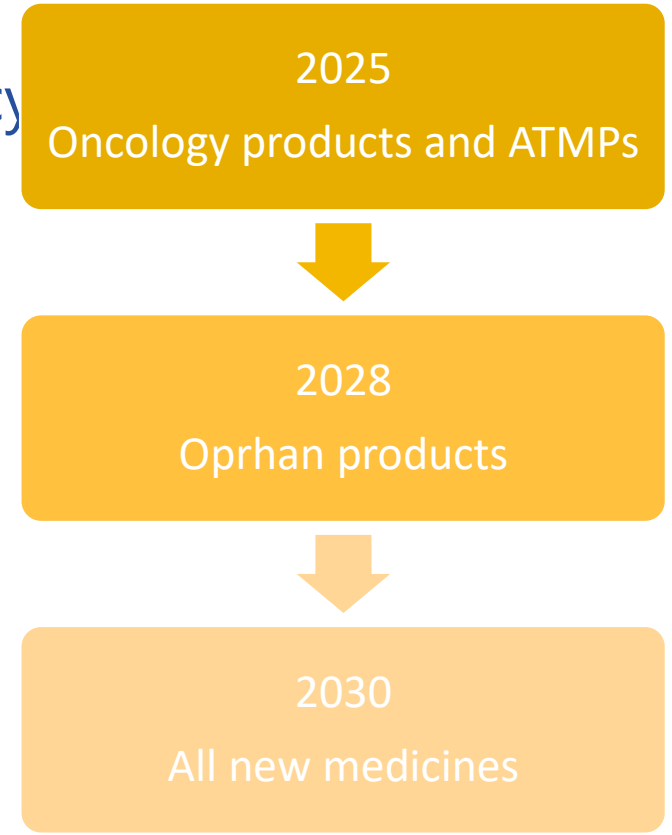
- *Support the Coordination Group and Sub-Groups*
- *Ensure interactions with Stakeholders, EU Agencies, Developers*
- *Enforce procedural rules and Involvement of experts*

Countries willing to do more together (e.g. going farer than the Joint HTA Report):

- *defining the best population*
- *drafting conclusions on benefit*
- *sharing model for economic evaluation*

Key aspects of the HTAR

- Joint work on common scientific, clinical aspects of HTA
- Driven by Member State HTA bodies
- Ensures coordination, high quality, timelines and transparency, reduces duplication of efforts
- Ensures use of joint work in national HTA processes
- Addresses stakeholders' engagement in joint work
  - Patients, carers
  - Clinical experts
- Member States remain responsible for:
  - Drawing conclusions on added value for their health system
  - Taking decisions on pricing & reimbursement
- Progressive implementation



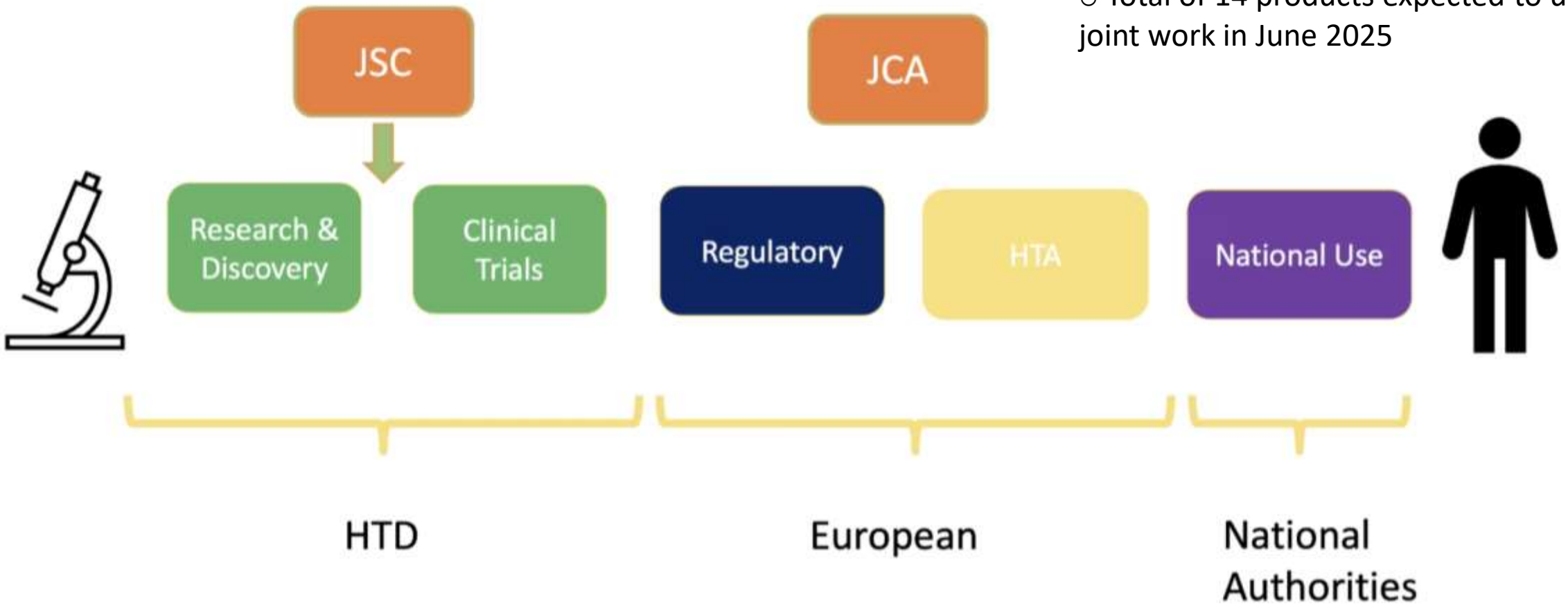
4 areas of joint work

- **Joint Clinical Assessments**
  - Compilation of comparative clinical evidence with an analysis of the degree of certainty of the available data
  - In accordance with an assessment scope (PICOs)
  - Based on the scientific aspects of the clinical domains of HTA
- **Joint Scientific Consultations**
  - Offers recommendations to HTDs on their development plans for at an early stage of the development where the clinical studies and clinical investigations are still in the planning stage
  - Discussions are structured around PICO and health economic assessment (optional)
- Emerging health technologies (horizon scanning)
- Voluntary cooperation

JSC and JCA

2 products currently undergoing JCA: treatment for melanoma (ATMP), treatment for paediatric low-grade glioma

- Total of 14 products expected to undergo joint work in June 2025



A quick word on the HTA assessment scope

- The basis of a HTA is a set of **defined research questions** that are to be answered by the assessment and that together define the assessment scope.
  - **P** – Population
  - **I** – Intervention
  - **C** – Comparator
  - **O** – Outcome
- Translation of national policy questions into research questions
- Opportunity for each MS to identify and provide their national needs
- E.g. Refractive laser surgery for people with vision conditions

PICO	Description
Population	**People** with **vision conditions** (e.g., myopia, astigmatism, presbyopia)
Intervention	**Refractive laser surgery**
Comparator	**Conventional vision technologies** (e.g., prescription glasses, contact lenses)
Outcomes	**Clinical benefits** (e.g., visual acuity, QoL, patient satisfaction) and **harms** (adverse events) **Other domains**: **Organisational** (e.g., implementation considerations) and **Social** (e.g., values and preferences of patients and physicians) **Recommendations** from **evidence-based guidelines**

Patient Engagement in EU HTA – What to expect?

- The HTAR establishes quality standards for the joint work
  - It requires the systematic and timely participation of patient experts in the procedures, especially in the main activities, such as JSCs and JCAs.
- Patients are expected to share their expertise with the condition through a questionnaire, in written form or during an online interview.
- For instance, they may be asked to provide inputs on
  - The impact of the disease in daily life,
  - If different patients are affected differently,
  - Which treatments are currently used and what are their limitations and benefits,
  - If different people respond differently to these treatments,
  - If patients think specific subgroups of patients need special consideration,
  - On which effect will they decide if the medicine is working for them,
  - If they should take it, what are their expectations for a new treatment
  - And other questions that will help experts assess the medicine.

Patient Engagement in EU HTA – where is engagement happening?

- **Scientific consultation**
  - To minimise the risks that inadequate information from clinical trials are submitted at a later stage (for JCA)
- **Scoping (PICO)**
  - Which domains/topics/questions should be answered?
  - Which target (P)opulation? Which (I)ntervention? Which (C)omparator? Which relevant (O)utcomes to consider?
- **Clinical assessment**
  - Answers related to questions important to impact of disease, experience with currently available interventions, expectations of/requirements for new health technologies under assessment, and additional information which the patient and/or caregiver believed would be helpful to the HTA researchers
- **Comments on draft reports**

Patient Engagement in EU HTA – How are patients recruited?

- To identify experts, the European Commission (EC) relies on:
  - The EMA and Orphanet databases
  - The HTA Stakeholder Network (of which EURORDIS is a member), ERNs, and National contact points
- For each procedure, these actors and database provide contact details of patients to the EC
- Once the EC receives the patient's contact details, the patients need to fill out a Declaration of Interests form and a resume (CV) on the HTA IT Platform
- Patients are selected by the relevant subgroup (JSC/JCA) to take part in a procedure
- Patients are contacted by the Brussels Centre for Collaboration in Health (BCCH) for administrative support (e.g. signing confidentiality agreement)
- Patients gain access to all necessary information to contribute to JSC/JCA
- Personal data of patients involved remain will remain confidential

Conflict of Interest

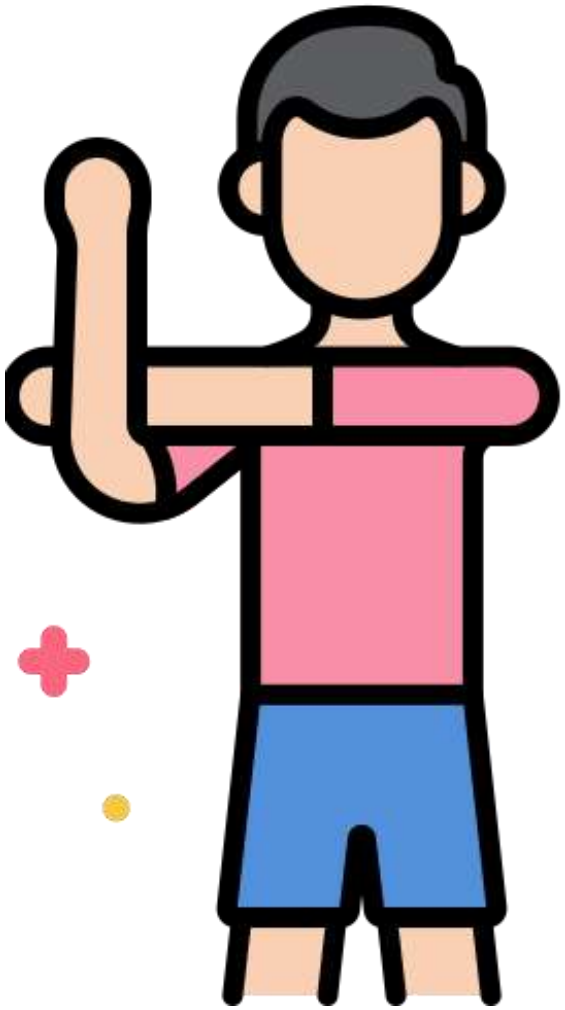
- Participants must be free of conflict of interest (CoI)
- Examples of what constitutes a CoI
  - Executive position in a health technology developer in the past 5 years
  - Reimbursement above EUR 1 000 from one health technology developer over the past 3 years
  - Shares or other intellectual property rights
  - Principal investigator or investigator over the past 3 years
- Annex II of Implementing Regulation 2024/2745 provides the list of what may constitute a conflict of interest
- If no patient free of CoI can be found to participate in joint work (cf rare diseases), the EC might be flexible

Expertise, experience, knowledge

- As patients, the EC considers you are experts in your field
- No need to be an expert an HTA, data, clinical trials (etc) to participate in joint work
- But, should you want to increase your skills and knowledge to feel better prepared, training opportunities on HTA exist

Getting ready for the HTAR

- **Lobbying Member States**
  - Enquire what national HTA agencies are planning for their participation to HTA reports (authors, co-authors, etc.)
  - Ask to be consulted at national and/or EU level (e.g. translation of summaries)
- **Less than 3 years for the federations to get ready for the assessment of all ODs and MD**
  - Familiarise yourself with patient experience data
  - Build knowledge on HTA
- **Horizon scanning**
  - ALS identified 13 products for which development should be prioritised
  - Same for other conditions, start now
  - Identify which ODs and MDs are coming up and identify best comparators and end-points
- **Be prepared to express unmet needs with regards to existing products**



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Questions?

Involvement of patients in HTA in CEE Member States

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Patient engagement in HTA

- **Patient engagement (PE)**
  - Patients' perspectives are important to identify preferences, estimate values and appreciate unmet medical needs in the process of research and development and subsequent assessment of new health technologies
- **In HTA?**
  - Essential in understanding and assessing wider implications of coverage and reimbursement decisions for patients, their relatives, caregivers, and the general population
  - Intended to inform all the elements of an HTA from shaping research questions, early dialogues, informing cost-effectiveness models and/or the deliberation process

Engaging patients

- Two possible approaches (ideally combined)
  - #1 Patients, caregivers and/or their representatives **directly participate in discussions** in different stages of the HTA process, alongside other stakeholders
    - Call for written comments, patient panel, advisory board, focus groups, etc)
  - #2 Patient involvement activities can be **supported by evidence on patient value and experience collected** directly from patients, caregivers and/or their representative often by patient groups
    - Patient preferences studies and patient engagement in the collection of patient reported outcomes
    - Increasingly recognised as valuable addition to technology developer by HTA organisations

- Approach to patient involvement significantly differs from one country/region to another
- Survey from HTAi PCIG (2016)
  - Australia, Canada, Columbia, England, France, Germany, Italy, Netherlands, Sweden, Taiwan, Poland, Scotland and Wales reported PE activities (HTA agencies)
  - Only Poland as CEE country and PE may be underreported if other CEE countries did not answer the survey
- CEE countries are in general at less advanced stages of implementing HTA, hence in PE in HTA too
  - Cultural, historical, economic, organisations aspects to be taken into account
- Patient engagement practices are limited in CEE countries without clear methodology or regulatory mechanisms to guide PE

Next Generation Health Technology Assessment (HTx)

- HTx is a Horizon 2020 project to create a framework for the Next Generation Health Technology Assessment (HTA) to support patient-centered, societally oriented, real-time decision-making on access to and reimbursement for health technologies throughout Europe.
- EURORDIS, as part of WP5, participated in a study leading to 2 articles: 1. Potential barriers to PE in HTA in CEE countries, 2. Recommendations for PE in HTA in CEE countries
- **Barriers must be differentiated between the perspectives of 1. HTA bodies and payers, 2. patients and patient communities**
- **Could, to some extent, be expanded to countries other than CEE countries**

Barriers to patient engagement – HTA bodies and payers

- **Limited willingness to involve patients**
  - Limited impact of societal factors on pricing and reimbursement decisions
  - Lack of understanding of the added value of involving patients
  - Lack of trust in objectivity and relevance of patient stories (e.g. emotional aspects)
  - PE is not mandatory
- **Conflict of interest and confidentiality**
  - Because of industry funding of PO
  - Fear of violation of breaking confidentiality by patient representatives
- **Lack of human resources**
  - Fear of conflict between the patients' needs for information/support and tight deadlines
  - HTA bodies and payer organisations do not have enough time/human resources to involve patients (even though they would want to)

Barriers to patient engagement – HTA bodies and payers (2)

- **Difficulties in finding the 'right' patient representative**
  - Lack of support and supporting tools (e.g. registries, networks) for recruitment
  - Difficulties in identifying representatives from the disease area needed
  - Lack of understanding of different patient roles (personal views, community perspective
  - Patient representatives' actual representativeness
- **Not knowing how to involve patients**
  - Lack of experience, skills, training in knowing how and when involving patients
  - Lack of local/regional/country-specific guidelines on best practices of patient involvement in HTA

Barriers to patient engagement – patients and patient communities

- **Lack of understanding the decision context**
  - Basic knowledge in HTA, knowledge of the local regulatory processes, knowledge and understanding of the medical language, English proficiency (which limits the amount of information one can receive/access)
- **Lack of knowledge and guidance of evidence-based advocacy**
  - No methodological guidance to support activities of PO in collecting data (e.g. survey) valuable to HTA
  - Lack of experience and expertise in searching/interpreting information from independent resources (e.g. scientific articles
- **Lack of resources (incl. no compensation for time, travel, etc.)**
- **Lack of ethical guidance**
  - No clear rules on how to represent a community and on how to distinguish it from individual patient perspectives, confidentiality requirements, etc.

Greatest perceived hurdles by patient representatives

1. *Patient organisations' general lack of capacities due to financial constraints,*
2. *Lack of understanding of the added value of involving patients in the HTA process,*
3. *Patient involvement in HTA is not mandatory/is not mentioned in the local HTA guideline,*
4. *Payer or HTA organisations do not have enough human resources/time to involve patients (even though they would intend to),*
5. *Lack of experience/training/skills from the HTA and payer organisations' side in knowing how and when to incorporate patient perspectives.*

Greatest perceived hurdles by researchers, professionals, industry

1. *Patient representatives' lack of basic knowledge in HTA*
2. *Lack of support and supporting tools (*e.g.*, registries or network) to help patient recruitment*
3. *No methodological guidance to support the activities of patient organisations in collecting data (*e.g.*, survey) valuable for HTA*
4. *Societal factors have a limited impact on pricing and reimbursement decisions (*i.e.*, the reimbursement decision is evaluated only from the payer perspective per legal framework)*
5. *Lack of local (regional or country-specific) guidelines on best practices of patient involvement to HTA.*

Question: Do you agree with these?

Recommendations for patient involvement in HTA

#1 Educate HTA/payer organisations on the value and good practices of patient involvement

- Should come from reliable and acclaimed sources
- International umbrella POs, academics with research in the field or other countries' HTA organisations with long-time experience in patient involvement can help demonstrate its value and good practices
- Also important to include local patients, patient representatives and patient experts

#2 Acknowledge patients as experts on their condition, similar to health care professionals. Differentiate but equally value the input of individual patients, patient representatives, and accredited patient experts

- Rule of thumb: where HCPs can be involved in the HTA and reimbursement decision-making process as experts, patients can and shou
- Differentiate the potential roles of patient interaction such as individual patients, carers, patient advocates, patient organisation representatives, and patient expertsld be involved as well
- HTA/payer organisations should choose the most adequate patient representation for each activity

#3 Revise local HTA guidelines and procedures

- Involving patients in the conception/creation/revision
- Regularly monitoring whether the guidelines are followed and prepare impact assessment

#4 Nominate a dedicated person/team to be responsible for patient involvement activities with sufficient available capacities at each relevant HTA and decision-making body

- The most influential skills to look for when choosing a person or building a patient coordinator team include (1) having worked with or within patient organisations before, (2) having experience in mediation between different stakeholders, and (3) having experience in translating complex topics to lay language

#5 Set a certain percentage of the HTA annual budget to be spent on patient involvement as a goal

#6 Fair compensation for time and transportation should be provided for the patients involved in the HTA process

- Fair compensation for time (i.e., lost revenues) and covering transportation costs should be the base principle when involving patients in the HTA process
- Bare minimum to allow patients to be able to participate in such processes (e.g., especially for those living in the countryside and/or experiencing financial hardship)

#7 EU-funded calls for the implementation of patient-centric evaluation of health technologies especially in countries with limited experience in patient involvement

- Designing a call targeting the advancement of countries with limited experience in patient involvement (mostly but not exclusively CEE countries), in which they can apply for EU-funding for educational and capacity building activities or specific case studies

#8 Set up an open call for individual patients or patient organisations to register for involvement into HTA. Have and implement a clear policy on conflict of interests

#9 Provide tailored training(s) and training materials for patients on HTA and local health policy decision-making procedures. Set up a working group of organisations with extensive experience in education and working with patients to act as centre of training of patient experts

- Essential for patients to understand the need for HTA and rationale behind it
- Training centre should be set up locally, adapting existing training materials (e.g., EUPATI) and utilising local organisations' experience and infrastructure in education and/or working with patients

#10 Educate patient organisations on collecting data and interpreting scientific evidence based on international educational resources

- Educating patient organisation representatives and patient experts on conducting their own research on patient input collection and interpreting scientific evidence

#11 Patient organisations to aim for a diversified portfolio of funders. And to declare funding sources publicly

- Avoiding a single funder to be proportionally standing out of the funding scheme
- Funding diversity should be obtained both in terms of public-private mix (at least 3 private organisation funders)

#12 Normative state funding for NGOs with close auditing and detailed expectations from and responsibilities of patient organisations. Neither public, nor private funding should be banned by legislation

- Main recommendation to overcome patient organisations' general lack of capacities due to financial constraints is to provide them normative state funding
- Criteria and auditing of such funding should be strict to avoid misuse of the funding

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Questions?

Useful resources

frontiers | Frontiers in Public Health

ORIGINAL RESEARCH

Potential Barriers of Patient Involvement in Health Technology Assessment in Central and Eastern European Countries

Maria Dimitrova[1], Ivett Jakab[2], Zomitsa Mitkova[1], Maria Kamusheva[1], Konstantin Tachkov[1], Bertalan Nemeth[2], Antal Zemplenyi[2,3], Dalia Dawoud[4,5], Diana M. J. Delnoij[6,7], François Houyez[8] and Zoltan Kalo[2,9]*

Patients' perspectives are important to identify preferences, estimate values and appreciate unmet medical needs in the process of research and development and subsequent assessment of new health technologies. Patient and public involvement in health technology assessment (HTA) is essential in understanding and assessing wider implications of coverage and reimbursement decisions for patients, their relatives, caregivers, and the general population. There are two approaches to incorporating the patients' voice in HTA, preferably used in a mix. In the first one, patients, caregivers and/or their representatives directly participate at discussions in different stages of the HTA process, often at the same table with other stakeholders. Secondly, patient involvement activities can be supported by evidence on patient value and experience collected directly from patients, caregivers and/or their representatives often by patient groups. Patient involvement practices, however, are limited in Central and Eastern European (CEE) countries without clear methodology or regulatory mechanisms to guide patient involvement in the HTA process. This poses the question of transferability of practices used in other countries, and might call for the development of new CEE-specific guidelines and methods. In this study we aim to map potential barriers of patient involvement in HTA in countries of the CEE region.

Keywords: patient engagement, health technology assessment (HTA), barrier, central and eastern EU countries, potential

INTRODUCTION

Patients' perspectives are important to identify preferences, estimate values and appreciate unmet medical needs in the process of research and development and subsequent assessment of new health technologies (1). Health technology assessment (HTA) is a multidisciplinary process that uses explicit methods to determine the value of a health technology from different dimensions. Such health technology can be a medical test, device, medicine, vaccine, medical procedure, program,

https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2022.922708/full

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Recommendations to overcome barriers to the use of artificial intelligence-driven evidence in health technology assessment

Antal Zemplényi[1,2]*, Konstantin Tachkov[3], Laszlo Balkanyi[4], Bertalan Németh[2], Zsuzsanna Ida Petykó[2], Guenka Petrova[3], Marcin Czech[5], Dalia Dawoud[6,7], Wim Goettsch[8,9], Inaki Gutierrez Ibarluzea[10], Rok Hren[11], Saskia Knies[8], László Lorenzovici[12,13], Zorana Maravic[14], Oresta Piniazhko[15], Alexandra Savova[3,16], Manoela Manova[3,16], Tomas Tesar[17], Spela Zerovnik[18] and Zoltán Kaló[2,19]

Background: Artificial intelligence (AI) has attracted much attention because of its enormous potential in healthcare, but uptake has been slow. There are substantial barriers that challenge health technology assessment (HTA) professionals to use AI-generated evidence for decision-making from large real-world databases (e.g., based on claims data). As part of the European Commission-funded HTx H2020 (Next Generation Health Technology Assessment) project, we aimed to put forward recommendations to support healthcare decision-makers in integrating AI into the HTA processes. The barriers, addressed by the paper, are particularly focusing on Central and Eastern European (CEE) countries, where the implementation of HTA and access to health databases lag behind Western European countries.

Methods: We constructed a survey to rank the barriers to using AI for HTA purposes, completed by respondents from CEE jurisdictions with expertise in HTA. Using the results, two members of the HTx consortium from CEE developed recommendations on the most critical barriers. Then these recommendations

https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2023.1176200/full

EUCAPA

Project Trainings

Trainings > Introductory Training

Introductory Training

Length: 2 hours Modality: Online

HTx Patient Toolbox

Facing challenges in HTA		Choosing the best treatment for you		Using the right PROMs for you	
Policies and Real-World Data (RWD)	Evolving challenges for HTA agencies for COVID-19 technologies	Developing prediction models	Predicting risks of complication	Using the PROMs app	Using the PROMs SELECT app