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To cite this article: Bertalan Németh , Wim Goettsch , Finn Børllum Kristensen , Oresta Piniashko , Mirjana Huić , Tomáš Tesař , Dragana Atanasijevic , Iga Lipska & Zoltán Kaló (2020) The transferability of health technology assessment: the European perspective with focus on central and Eastern European countries, Expert Review of Pharmacoeconomics & Outcomes Research, 20:4, 321-330, DOI: [10.1080/14737167.2020.1779061](https://doi.org/10.1080/14737167.2020.1779061)

To link to this article: <https://doi.org/10.1080/14737167.2020.1779061>



Published online: 18 Jun 2020.



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PERSPECTIVE



The transferability of health technology assessment: the European perspective with focus on central and Eastern European countries

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ABSTRACT

Introduction: Lower-income European countries have a worse health status and less funds for health care compared to Western Europe. Despite their limited human and financial capacities for conducting Health Technology Assessment (HTA), the need for evidence-based decision-making is growing. Two main approaches emerged as potential solutions: joint clinical assessments on the European level, and simplified procedures relying on the judgments of well-established HTA agencies of Western countries.

Areas covered: Based on considerations of transferability, the European Network for Health Technology Assessment (EUnetHTA) was built up to harmonize HTA methodologies across the European Union, and to develop an HTA Core Model by focusing on joint production of relative effectiveness assessment, which can be used as a basis for national value assessments. The second approach has been suggested in various forms without considering transferability issues.

Expert opinion: Joint clinical assessments reduce duplication of efforts based on appropriate scientific rationale. On the other hand, recent examples show that relying on judgments of HTA agencies from wealthier countries with potentially different health-care priorities can lead to suboptimal allocation decisions. In the short term, some stakeholders may benefit from ignoring transferability, but it will ultimately lead to limited access in other disease areas.

ARTICLE HISTORY

Received 29 August 2019
Accepted 3 June 2020

KEYWORDS

Central and Eastern Europe; EUnetHTA; health policy; health technology assessment; transferability

1. Introduction

Despite recent improvements, populations in lower-income European countries, especially in Central and Eastern Europe (CEE) generally have a poorer health status compared to Western European countries [1,2]. This is substantiated by life expectancy statistics [3], cancer survival rates [4,5], liver disease epidemiological data [6], and several other indicators. In addition, public resources available for health care are also more limited in CEE countries [7,8]. Health-care budgetary constraints result in barriers of patient access to high-cost medical technologies such as innovative pharmaceuticals or medical devices [9–11]. Health Technology Assessment (HTA) aims to inform health policymakers by using the best available scientific evidence on the medical, social, economic, and ethical implications of investments in health care [12]; hence, CEE countries may benefit from its implementation by reducing the opportunity cost of inappropriate health policy and resource allocation decisions.

In several Western European countries, strong HTA bodies that employ large number of experts were established decades ago. They have a strong influence on health-care decision-making, for example, in decisions regarding the inclusion

of pharmaceuticals into local reimbursement system. Examples of such Western European institutions are the Haute Autorité de santé (National Authority for Health, HAS) in France, the National Institute for Health and Care Excellence (NICE), in England, and the Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen (Institute for Quality and Efficiency in Health Care, IQWiG) together with the Federal Joint Committee (Gemeinsamer Bundesausschuss, G-BA) in Germany [13,14].

While, for example, Poland [15] and Hungary [16] have more than a decade-long experience with HTA institutions, several other Central and Eastern European countries are in less advanced stages of establishing HTA frameworks [17–21]. A limited tradition of transparency [22] and placing trust in independent institutions in CEE countries is a probable cause of an East-West divide in degree of HTA implementation and having evidence-based decision-making systems [8,23]. Even after an HTA institution has been established, the absence of transparency can lead to a diminished influence of these institutions on the decision-making process in health-care systems [24].

Article highlights

- Central and Eastern European countries generally have a worse health status and less public resources for health care; therefore, they have an even greater need to make well thought-out, evidence-based policy decisions.
- Health technology Assessment (HTA) is a tool that when applied adequately, can support unbiased, evidence-based decision-making in health care.
- Transferability of HTA needs to be taken into account, when looking for a right balance between avoiding duplication of work by HTA bodies, and maintaining scientific accuracy and policy relevance.
- If transferability is not considered, and results of cost-effectiveness analyses are used as a basis of decisions in other jurisdictions, the decision-making framework loses its scientific foundation.
- The HTA Core Model approach encourages explicit considerations on the transferability of relative effectiveness assessment across countries and recommends national HTA assessment based on similar methodologies, which ultimately reduces duplication of efforts while adhering to key scientific principles.

Several researchers have noted the limited capacity of CEE countries for HTA implementation, due to scarce financial resources available for HTA, and limited number of trained experts [8,25,26]. The upfront costs of establishing HTA can be unappealing to some decision-makers [27]. However, the need for evidence-based decision-making in health care generally surfaces as economies develop, either through internal or external pressure [28].

Under these circumstances, HTA implementation in CEE countries should be particularly resource-conscious and avoiding duplication of efforts where appropriate should be considered. Assessments of the best available evidence to inform a decision, particularly in pharmaceuticals, will often be done within the same time window after marketing approval, meaning that many HTA bodies will be doing assessments at the same time. While reproducibility of scientific results is a criterion of quality widespread systematic search, review, scientific interpretation, and reporting of evidence on the same technology is seen as unnecessary duplication [29,30]. However, this does not apply to all parts of HTA reports; therefore, the question of transferability of HTA surfaces, when cross-border information sharing is being considered [31].

Transferability of HTA can be broken down into four parts. Transferability of evidence from research data (i.e. clinical and economic data), transferability of HTA methodology, transferability of HTA recommendations, and transferability of policy (e.g. reimbursement or formulary listing) decisions. Another aspect is, highlighting the importance of addressing transferability that the aforementioned well-established HTA institutions use different methodologies [14,32,33], and based on different national health-care priorities their reports can reach different conclusions when assessing the same health technologies [34,35].

In relation to the economic evaluation, an area where transferability issues can especially be of high importance, all of the guidelines assessed in the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Good Research Practices Task Force Report on transferability of

economic evaluations across jurisdictions [36] noted that unit cost prices should be specific to the given jurisdiction. The main reasons behind this are differences in relative and absolute price levels across countries. The report also concluded that even in the case when the starting points, the experimental technology and the comparator(s) included in a cost-effectiveness analysis are all relevant to the jurisdiction of interest, and even the methodological quality is acceptable, results are only transferable after adjustment for differences in treatment patterns, unit costs, or other aspects [36]. Despite these scientific concerns, a recent study showed that transferability is still not yet fully addressed in Central and Eastern European economic evaluations [37].

The first of two main proposed solutions would be using centralized clinical information, to aid localized cost-effectiveness and even budget impact assessments feeding into an appraisal that suits the national setting, as proposed by the European Network for Health Technology Assessment (EUnetHTA) [29]. The second is a simplified score system that takes the reports from the prestigious Western European HTA organizations without local adjustments, to inform coverage decisions at the national level in CEE countries with more limited HTA capacities [38]. The first approach is currently being discussed at the EU level, while the latter approach has been recently gaining popularity in the CEE region. Therefore, we felt the need to discuss the appropriateness and likely effects of these two alternatives.

The objective of this paper is to explore the advantages and disadvantages of the two proposed methods, addressing concerns of transferability in HTA, and possibly provide guidance on choosing one or the other from the perspective of Central and Eastern European countries.

2. Body

2.1. HTA Core model with centralized relative effectiveness assessment and localized cost-effectiveness assessment feeding into national appraisal

EUnetHTA is a cooperation of HTA institutions across Europe, aiming to build an effective and sustainable European system of knowledge sharing of HTA [39]. Co-financed by European Union (EU) grants and member countries, EUnetHTA is currently in its third Joint Action phase, supporting collaboration between European HTA organizations through the facilitation of efficient HTA resource use and promotion of good practice in HTA methods and processes at the European, national, and regional level [40].

Overall, the HTA Core Model approach [41] facilitates harmonization on multiple accounts, from methodologies to evidence submission templates [42]. It is a complex tool, a framework, that aims to enable effective international production and sharing of HTA results in a structured format through its nine domains. Core HTAs produced with the Model are intended to serve as a basis for national HTA assessment [43]. The HTA Core Model consists of three main components: 1) the HTA ontology, encompassing 136

standardized questions within a framework with nine domains 2) methodological guidance, recommending the use of already existing, generally recognized methods guidance and 3) a common reporting structure, providing a standard format for recording and displaying HTA results. The aforementioned nine domains are shown in Table 1 [44]. The HTA Core Model covers all nine domains, while a focused rapid relative effectiveness assessment (REA) model only focuses on domains 1–4 [41].

It is worth to note that a toolkit was also established to support the adaptation of an existing national report to a national HTA report in another country, or to serve as policy input: the Health Technology Assessment Adaptation Toolkit [45,46]. For each domain of the Core Model, joint HTA work and local adaptation are both being considered. In line with previously discussed considerations, results in some domains are almost fully transferable, such as assessment of clinical effectiveness [47], while other domains have limited transferability, e.g. costs and economic evaluation. The structure of an economic model serving as a basis of economic evaluations may be transferable, with or without structural modification, but no conclusion can be drawn about cost-effectiveness without using local data as input [48]. Local reports on cost-effectiveness therefore may use the information of joint assessments conducted with the EUnetHTA Core Model, tailored to their needs. However, the local reports will always require local input as well, regarding the nontransferable domains.

A recent European Commission (EC) proposal on HTA and amending a previous directive, taking into account the results of all EUnetHTA projects and joint actions aims to ensure the long-term sustainability of EU HTA cooperation after 2020, reduce duplication, ensure the use of joint outputs, ensure the appropriate stakeholders' involvement, improve the availability of innovative health technologies for European patients and ensure efficient use of resources and strengthen the quality of HTA across the EU [49]. The key elements of the Proposal are as follows: Member States driven scientific work; focus on joint clinical assessment to inform national assessments; high quality and timely output; use of joint work – no duplication; fit for purpose; transparency and stakeholders' involvement; four areas of joint work; governance proposed and pragmatic approach [49]. The discussions on the details of a legislative basis for a sustainable European collaboration are still going on [50].

Table 1. The nine domains of the HTA Core Model developed by EUnetHTA [44].

Domain number	Domain name	Proposed source in a full national appraisal or assessment
1.	Health problem and current use of technology	Joint Rapid Relative Effectiveness Assessment and/or local data input
2.	Description and technical characteristics	
3.	Safety	
4.	Clinical effectiveness	
5.	Costs and economic evaluation	Local data input only
6.	Ethical analysis	
7.	Organizational aspects	
8.	Patient and social aspects	
9.	Legal aspects	

2.2. Transferability of HTA recommendations or policy decisions: so-called 'Balanced Assessment Systems' (BAS) and scorecards

In an attempt to bridge the gap between the limited number of experts and funds dedicated to HTA and the growing need for evidence-based decision-making, a so-called 'balanced assessment system' (BAS) or 'pragmatic value assessment' (PVA) has been suggested, first in 2014 [38,51]. The BAS/PVA example lays out a complex procedure in detail, showing similarities to a MCDA framework, addressing cost-effectiveness, budget impact, added therapeutic value, and ethical considerations, among other factors. In this analysis, we focus on the section concerning cost-effectiveness, often a key component of HTA. In the example provided in the paper, the pharmaceutical in question can only gain points in the particular indication in a particular country if it has been judged to be cost-effective by a leading HTA agency elsewhere [38]. While briefly mentioning the limitations of transferability of HTA results, the authors still suggest using results from other jurisdictions, with no encouragement to do local cost-effectiveness analyses.

The authors revisited their approach 3 years later [52], acknowledging among other factors, the issues concerning transferability in the original BAS/PVA model, especially the debate on the transferability of cost-effectiveness results. Though the authors address some of the concerns raised by experts, and even claim that the BAS/PVA framework can be combined later with, e.g. evidence from European joint REAs, ultimately they maintain that without good-quality local data and access to a limited number of experts, conducting local cost-effectiveness analyses is not feasible in certain jurisdictions [52].

In the case of Romania, the use of "'de-facto" HTA' was suggested by another group of experts [53], which would have used a reference jurisdiction, to obtain prices and HTA processes and outcomes, and use this as a basis of price determination, taking per capita gross domestic product (GDP) figures adjusted to local purchasing power parity (PPP) into account [53,54]. The authors suggested it as an interim solution, until more robust local HTA processes are established, hoping that it would 'kick-start domestic HTA development' [53], highlighting later that the suggested method 'is not (and is not intended as) a substitute for properly conducted HTA' [55]. Ultimately, the suggested framework was not implemented in Romania [56], neither in Serbia, where the same model was proposed as an 'interim measure' for 'informing price negotiations in the absence of local, evidence-based considerations of value for money' [55].

The Romanian 'HTA scorecard,' first introduced in 2013, then revised in 2014 does not take into account locally developed HTA reports, only the conclusions of the aforementioned English, German, and French authorities together with other factors such as the number of EU countries where the product has a positive reimbursement status, local real-world data, and a budget impact analysis on the direct costs [57].

A similar approach was suggested by a World Bank expert [58] applying a simple scorecard based on the results of

analyses of HTA institutions which the author describe as being 'competent.' The relevance of the disease and treatment delivery can also be scored with the final goal of ranking new treatments in terms of priority to be included in a reimbursement system. The author mentions that local cost comparison, but not a thorough cost-effectiveness analysis, can also be a part of the scorecard-based assessment. With this framework, if the health technology has reached reimbursement status in, e.g. the Netherlands or the United Kingdom, it will receive a higher score in the country in question. Transferability issues were not addressed in the proposed example [58].

2.3. Comparison of the two main approaches

The HTA Core Model has been built by a large and diverse pool of European experts, coming from Western as well as from CEE countries, over several years, with scientific scrutiny [41], receiving positive feedback from the industry perspective as well [59]. Analysis on pilot REAs showed that even though national reports can have significant differences, the joint assessments included nearly all necessary pieces of key information [60], further substantiated by the high number of countries reporting use of joint assessments already [61].

A recent report found that 49 HTA organizations from 25 EU countries and Norway indicated that they use HTA information from other jurisdictions, though as the report highlights 'Often it was specified that the HTA information from other jurisdictions were used for information purposes and not for direct application in the national HTA production process' [21]. In addition, several countries indicated that use of the EUnetHTA joint assessment reports is a part of their national practice of utilizing HTA information from other jurisdictions, and 38 HTA organizations from 23 EU countries and 3 Norwegian organizations explicitly indicated that they use EUnetHTA tools in their national HTA processes [21]. Another survey-based report on methodologies applied in European HTA institutions showed that in 2016/7 35 institutions (73% of all respondents) considered issues of transferability in their assessments – e.g. to/from populations studied or to/from other clinical, organizational, economic, social contexts [62].

Regarding real-life applicability, transfer of results of the scientific process of assessment into the process of recommendations and policy decisions has been successfully applied in 2011 in the Lombardy region of Italy, within the VTS (Valutazione delle Tecnologie Sanitarie) framework, based on the HTA Core Model and the EVIDEM multicriteria decision analysis (MCDA) framework [63]. The HTA Core Model was used by a global pharmaceutical company to develop a framework for internal assessment of evidence required for market access and coverage/reimbursement and it proved to be a useful framework around which to optimize internal processes [64]. The benefits of using a standardized HTA approach in industry mirror those expected from implementing the Model in HTA agencies. The usefulness of information from the Core Model also has been explored in various ways [65,66]. For example, a representative of the Hungarian HTA Office recently stated that in their experience,

using joint assessments did reduce the workload on their employees, and allowed them to dedicate more efforts toward the economic aspects of submissions [67]. Another example is Croatia which, despite its limited human and financial resources, already have lots of experience in production of joint rapid REAs on the EU level. Croatia already systematically uses joint European REAs and reuse national REAs from other countries as information to consider when carrying out local HTA, thus increasing the number and quality of national reports [17,68]. It is important to note that like in the example of Croatia, the joint REA approach is not aiming to replace the national HTA process.

The real-life application of the other approaches discussed above have not produced satisfactory results according to mid-term and long-term analyses. In addition to the Romanian HTA development not materializing during the past 6 years, and the scorecard not even meeting the BAS requirements [52] the Romanian scorecard was also criticized for not directly assessing the value of a drug, thereby not being a real assessment of the health technology [57] – eventually becoming a hard barrier for access from the point of view of manufacturers, due to the excessive focus on costs [69]. It was reported that more than 2000 pharmaceuticals disappeared from the Romanian market [56], and articles in the press point out a shortage of essential drugs in the country [9,70,71]. In addition, most of the experts that were trained earlier emigrated from Romania due to lack of work in the country, as having only a procedural approach toward estimating the value of health technologies locally does not create a need for local experts [28].

In a recent case from Slovakia [72], authorities applied the BAS approach [52], while increasing the cost-effectiveness acceptability threshold and simplifying market access pathways for some medicines without a cost-effectiveness analysis. This approach was referred to as the 'extraordinary reimbursement regime (ERR).' In a recent study, interviewed experts raised their concerns of the ERR becoming a 'backdoor market access' scheme for medicines that were likely not cost-effective in Slovakia. These pharmaceuticals undergo ERR for various reasons, thus creating a parallel reimbursement system [73]. This combination of factors led to the addition of many pharmaceuticals to the list of reimbursed medicines in a nontransparent way [73], and more importantly, also resulted in a financially unsustainable situation that necessitated immediate changes in the legislation [72].

It was also demonstrated that if the methods of transferring HTA recommendations from other countries proposed by Dankó and others will be further implemented without taking transferability into account, there will barely be any need for local HTA experts. As a result, local HTA education will not be developed, and the already trained HTA experts will pursue their careers elsewhere [28]. Therefore, if lack of experts was the reason why an adequate institutionalization of HTA was pushed to the future [52], this situation is unlikely to change in an environment where there is no need for trained experts. This phenomenon will maintain or even widen the gap between countries, going down a spiral of less and less local experts to rely on.

Initially, these policies will likely ease the introduction of new high-priced medications into the local reimbursement

systems, and some patient groups will undoubtedly benefit from this [73]. However, due to the limited health-care budgets, sub-optimal allocation decisions will lead to limited access in several areas, affecting other patient groups, likely in larger numbers, in a negative way [72]. Ultimately, even after a possible short-term spike in sales, pharmaceutical companies may also experience severe limitations. Without a well-established HTA framework, the therapeutic value of pharmaceuticals may have secondary importance, and entering the reimbursement system will be decided based on other factors, which may even lead to drugs disappearing from the market [56].

2.4. The issue of non-cost-effective pharmaceuticals in CEE

Regarding the importance of using adequate HTA methodology, one of the main issues is the case of pharmaceuticals which are not cost-effective and come with a significant budget impact in lower-income European countries, to which most Central and Eastern European states belong [74]. In the current age of instant access to information, demand for the innovative therapies puts pressure on payers in all countries, and Central and Eastern European nations are no exception [75].

External Reference Pricing (ERP) or external price referencing mechanisms, based on comparison of drug prices between countries do not seem to adequately address the pressing issues with high-cost innovative medicines. This is especially true when confidential price agreements are made in several countries, while ERP systems will be based on the publicly available prices only [76].

Looking beyond ERP, confidential agreements between payers and manufacturers, the so-called Managed Entry Agreements (MEAs), can be applied to tackle issues identified by thorough HTA reports [77]. It is of key importance that MEAs should not be looked at as 'quick fixes' to solve issues, rather as integral parts of a system that among other sources of information, relies on HTA as well [78]. This way, MEAs may be considered adequate compromises between two key stakeholders, based on the therapeutic value of the health technologies.

If the payer in a particular country does not have access to adequate HTA information, three main approaches have been established toward tackling the issue of high-cost medicines. The first approach is a general claw-back mechanism, when overspending is compensated by paybacks, based on market share. A system using this method has been implemented in Romania even before the 'HTA scorecard' was proposed [79]. This approach while beneficial in case of certain high-cost medicines, likely lead to losses for manufacturers with products with low-profit rates, and ultimately leads to drug shortages, as experienced in Romania [56]. The second approach is, when both transparent and hidden patient access barriers are established to control the volume of drug utilization such as slow and bureaucratic approval processes on the individual level, or high co-payments [80]. If significant proportion of patients cannot get access to high-cost therapies that are 'formally available' on the positive drug list or on an

individual patient basis, corruption might be incentivized. We wish to clearly distinguish these solutions from proper MEA implementation, as the latter requires an HTA framework to establishing the therapeutic value of the pharmaceutical [78]. The third approach is when no efficient policy tools are implemented to control the budget of pharmaceuticals without local cost-effectiveness evidence, such is the case of the orphan drugs budget in Serbia [81] where the amount of spending has increased by 15 times between 2012 and 2019 [82]. As seen with the example of Slovakia, this can rapidly lead to unsustainability of the pharmaceutical budget [72].

3. Conclusion

In conclusion, transferability issues are a key factor when conducting HTA, and it is essential to separate the transferability of data and methodology, from transferring recommendations and policy decisions. Reflecting the two stages of HTA process, in particular assessment and appraisal contextualization [33].

Development of strong national HTA institutions in CEE countries will provide benefit for health-care systems by reducing the opportunity cost of inappropriate health policy and resource allocation decisions.

The use of EUnetHTA methods and joint clinical assessments linked to localized cost-effectiveness assessments seems to be a feasible pragmatic solution for all countries, especially for those with limited human and financial resources. This approach is very well aligned with the current HTA proposal of the European Commission. On the other hand, directly transferring HTA recommendations or policy decisions across countries potentially leads to more harm than good. In the long term having no locally relevant evidence base for decision-making, and no adequate judgment of therapeutic value can reduce the sustainability of health-care financing, in the most serious cases lead to drug shortages, and potentially damage the reputation of policy-makers and manufacturers of innovative technologies.

4. Expert opinion

A crucial issue in HTA highlighted several times throughout this expert review is transferability. This is particularly relevant for the health economic parts of HTA. If a technology is cost-effective in higher-income country, there is no guarantee that conducting a cost-effectiveness analysis in a lower-income country with a different disease and practice pattern, different clinical guidelines, different comparators, different cost data, and finally different health-care priorities will result in the same conclusion [74]. In addition, if a status of being cost-effective in another country is reached via a method that results in a confidential price discount, a key element of the analysis will stay undisclosed to other actors [83]. Due to the confidential nature of such agreements, there is no guarantee that at least the same level of discount would be offered to others. Therefore, only considering the HTA recommendation or policy decision from another country – with or without confidential agreements on drug prices – will result in a fundamentally flawed base of judgment.

Transferring evidence on relative effectiveness is a process that can and should be applied during the development of national HTA reports. Transferability of international HTA methodology should be considered, for example, during the development of local HTA guidelines. Transferring HTA recommendations and policy decisions can be used only as a reference, as the national decisions should always be based on local analyses.

Another important thing to note is that HTA is not the root cause of access limitations [84]. As pharmaceutical budgets are limited, and costs of innovative medicines are rising [85], there are not enough funds available to satisfy all demands. An adequately developed HTA framework is an important tool in mitigating the effects of this phenomenon on the macro level, in an unbiased way [86], even if several challenges still remain [87].

When limited health-care resources are allocated in a wasteful manner, a fraction of patients can still benefit from these decisions, and they may even receive focused media coverage. On the other hand, other patients who would benefit from well-established and sustainable decision-making frameworks are not always easily identifiable. However, policymakers need to keep the focus on the entirety of the system.

If a sustainable European system of joint REAs will be established in line with the recent EC proposal, it will likely reduce the workload on the local HTA agencies of European Union member states which can then divert more attention to the nontransferable elements, such as cost-effectiveness assessments, of HTA reports [67], or take up other activities (e.g. horizon scanning). As a consequence, payers could base their decisions on more robust, publicly available unbiased and scrutinized information, that would also be publicly available. Pharmaceutical companies could focus their efforts on, e.g. localized clinical positioning with cost-effectiveness and budget impact calculations, thus most likely reduce debates with authorities regarding the comparative effectiveness of new therapies.

On the other hand, the proposed methods of transferring recommendations will ignore access to locally relevant HTA information both for payers, patients, and the general public. Perversely, by transferring recommendations of influential Western European HTA institutions may see an increase in their negotiating power for price reduction (often non-disclosed), as a positive recommendation or policy decision in the referenced higher-income country will have a direct positive effect on the reimbursement chances of the product in several lower-income countries.

The negotiation power of public payers includes several factors, for example, market size. Our scientific opinion is, that having a clear understanding of the therapeutic value of therapies is indeed one of the factors, that can enhance the success of negotiations, for example, by way of successfully applying MEAs. Besides, as HTA aims to assess the therapeutic value comprehensively, we strongly assert that payers do benefit from being able to rely on strong and well-developed HTA institutions in their own countries.

In terms of real-life applicability, the case of Slovakia [72] and Romania [56] has shown that long-term thinking is crucial in the implementation of pharmaceutical policy in the real world. Our expert opinion is that while 'quick fixes' may

appear to be tempting solutions in the short term to handle backlogs in pharmaceutical reimbursement decision-making, they will not deliver a sustainable solution – and may in fact be a barrier to attaining it.

It is in the interest of all stakeholders to have a sustainable system that in the long term can bring the most benefits for people suffering from all diseases. To reach this common goal, stakeholders need shared acceptable solutions, and we strongly assert that the more science-based and consensus-based approaches are, the better. While acknowledging that the lack of competent staff and funding for HTA in various jurisdictions makes it unlikely that every country will have an institution comparable to, e.g. NICE or HAS, our scientific opinion is that this should not justify support for proposals that grossly disregard key scientific issues such as transferability.

The current paper and the efforts of EUnetHTA focused on Europe. While we mostly discussed the issues of the CEE region, we believe that Western European countries can benefit from the results of joint work as well. Moreover, we believe that adhering to the key principles discussed above can be beneficial for all countries with limited HTA capacities around the world.

We expect that in 5 years, there will be wider direct experience with the joint REA approach, as a sustainable European HTA collaboration is set to be introduced after 2020 through legislation, according to the EC Proposal on Regulation on HTA. These experiences juxtaposed with the recent Slovakian and Romanian cases most likely will provide a more useful solution to the question of incorporating transferability of HTA recommendations or policy decisions from other jurisdictions into policymaking. It is unlikely that all CEE countries will have adequate and robust HTA systems in place, though hopefully with the joint REAs being available to inform national assessments after 2020, and with HTA capacity building, more countries can move ahead in terms of HTA implementation, with cost-effectiveness assessments performed on a national level or at least contextualized to the regional setting.

Future research should focus on discussing the current situation of HTA in Central and Eastern European countries in a comprehensive way. Following the works of for example Löblová et al. [88], scientific measurements of the success of HTA could be established, according to which both the general and specific problems of these countries can be systematically evaluated with the hope of finding solutions to the common issues.

Funding

This paper was not funded.

Declaration of interest

The authors have summarized their independent professional opinions. The content of this paper, as well as the views and opinions expressed therein are those of the authors and not necessarily their affiliated organizations. No writing assistance was utilized in the production of this manuscript. The authors have no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties.

Reviewers disclosure

Peer reviewers on this manuscript have no relevant financial relationships or otherwise to disclose.

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