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# Rationalizing the introduction and use of pharmaceutical products: The role of managed entry agreements in Central and Eastern European countries

Alexandru M. Rotar[a,*], Alin Preda[b], Olga Löblová[c], Vanesa Benkovic[d], Szymon Zawodnik[e], Laszlo Gulacsi[f], Maciej Niewada[g], Imre Boncz[h], Guenka Petrova[i], Maria Dimitrova[i], Niek Klazinga[a]

[a] Department of Public Health, University of Amsterdam, Amsterdam Public Health Research Institute, Meibergdreef 9, 22660, 1100 DD Amsterdam, The Netherlands
[b] Department of Public Health and Management, University of Medicine and Pharmacy "Carol Davila" Bucharest, Institute of Public Health, 1-3 Dr. Leonte Street, District 5, Bucharest, Romania
[c] School of Public Policy, Central European University, 1051, Nádor utca 9, Budapest, Hungary
[d] Croatian Society for Pharmacoeconomics and Health Economics, Drage Stipca 10, 10090 Zagreb, Croatia
[e] Department of Pharmacoeconomics, Medical University of Warsaw, Zwirki i Wigury 61, Warsaw, Poland
[f] Department of Health Economics, Corvinus University of Budapest, Fovam ter 8, 1093 Budapest, Hungary
[g] Department of Experimental and Clinical Pharmacology, Medical University of Warsaw, Banacha 1b, 02-097 Warsaw, Poland
[h] Institute for Health Insurance, Faculty of Health Sciences, University of Pecs, Maria u. 5-7, 7621 Pecs, Hungary
[i] Department of Social Pharmacy and Pharmacoeconomics, Faculty of Pharmacy, Medical University, Sofia, Bulgaria

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ABSTRACT

This paper aims to provide an overview of the rationalization strategies for the introduction and use of pharmaceuticals, focusing on the role of managed entry agreements (MEA) in Central and Eastern European (CEE) countries, namely Bulgaria, the Czech Republic, Croatia, Hungary, Poland and Romania. We developed a conceptual framework on MEAs that was used as the basis for a standardized assessment questionnaire sent to country experts to capture their perceptions on their countries' rationalization strategies and MEAs. Our study shows that the main role of MEAs and other related policies embedded in the health care system is to limit the budget impact of drugs in all examined 6 countries. Uncertainty about outcomes and appropriate utilization seem to be of lower priority. Finance-based MEAs are used by all countries. Performance-based MEAs are scarce and used to a limited extent by Hungary and Poland. The overall transparency of the existence and details of MEAs is limited. Expansion of the use and increased transparency of MEAs is recommended. Still, the informational infrastructure and competencies in implementing MEA's need to be developed further.



## 1. Introduction

*Safety, efficacy and quality of manufacturing* are mandatory for all new drugs [1–3]. The *reimbursement from public finances* is linked to discussions on cost-effectiveness, financial risk-sharing and solidarity [4,5]. Likewise, the quality of usage of medicines is an important prerequisite for *effectiveness* [6,7] and the *public payer-purchasing price* should contribute to fiscal sustainability [6,8]. Consequently, we believe these four focal points of regulation and governance are inter-related and overlap as is illustrated in the Venn-diagram we developed for this study, to help positioning our topic: managed entry agreements (MEAs) (see Fig. 1).

Decisions on pharmaceuticals *reimbursement from public finances* (via social health insurance or a national health service) are the competence of individual European Union Member States. To support decision making, in many European countries, health technology assessment (HTA) was introduced to assess the value of (new) drugs. Over the past two decades, HTA has become strongly institutionalized and fine-tuned as a way of informing decision making on pharmaceuticals reimbursement from public funds.

* Corresponding author at: Department of Social Medicine, University of Amsterdam, Meibergdreef 9, 22660, 1100 DD Amsterdam, the Netherlands.
*E-mail address:* a.m.rotar@amc.uva.nl (A.M. Rotar).

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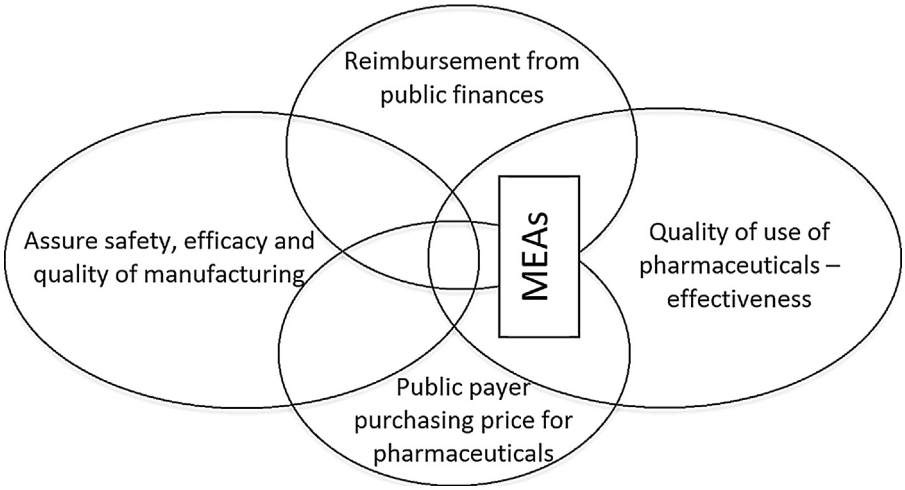


**Fig. 1.** Positioning of managed entry agreements (MEAs) amongst four focal points of governmental regulation and governance.

The topic of *outcomes observed in routine practice* of the reimbursed drugs, has been addressed increasingly over the past decade. It is not uncommon for the clinical efficacy shown in clinical trials not to be confirmed in less controlled real life situations. There can be a difference between the outcomes promised in clinical trials (efficacy) and what is happening in daily clinical practice (effectiveness) producing less value than predicted as part of the decision making on re-imbursement and hence a potential waste of resources [9]. This led to stricter HTA appraisals and the search for real-world evidence to reveal the true health outcomes in daily clinical practice. Therefore, governments began to implement new mechanisms (e.g. patient registries) for assessing effectiveness and hence assuring value for money.

Still, the HTA approaches put in place by European countries cannot guarantee financial sustainability. The *public payer-purchasing price* is under pressure to be decreased, especially in the aftermath of the 2008 economic crisis, when there was an overall decrease in spending on health care with a relative stronger decrease in spending on pharmaceuticals [10].

Existing HTA approaches showed their limitations in providing the desired financial sustainability and addressing the right set of evidence countries are looking for. One recent example is the debate in the United Kingdom around the reimbursement of the latest hepatitis C treatments. Despite NICE's long-standing approach of cost per QALY, the reimbursement of the latest hepatitis C treatments is strongly questioned on budget impact grounds [11] and government financial sustainability.

More recently, countries started to struggle to find regulatory and governance strategies for limiting *public payer-purchasing price* and linking it realized *outcomes in routine practice.* The natural step was to design new policy interventions for reducing the acquisition price deals (financial-based MEAs) and sharing the financial risk(outcome-based MEAs) amongst the producers of the drugs and the governments or purchasing bodies acting on their behalf [12].

Within this context, the *managed entry agreements* (MEAs) have been developed. A first definition of the concept was provided in 2011 by Klemp et al. [13]. According to Ferrario et al. [14], a MEA is a tool that aids governments to share the financial risk, implemented as formal arrangements between payers and manufacturers in different shapes (e.g. price-volume agreements, discounts, coverage with evidence development).

Ferrario et al. stress that the main goal of MEAs is to manage uncertainty (or risk) for the payer of unexpected performance of a new medicine. A drug may under-perform and prove less effective than expected.

In the context of existing governance initiatives taken by countries, MEAs can be seen as a government policy strategy enabled by a contractual relationship between a manufacturer and payer/provider that allows reimbursement/coverage from public funds of a drug subject to specified conditions. These arrangements can be shaped as different policy interventions to address uncertainty about the performance of pharmaceutical products or to manage the adoption of pharmaceutical products in order to maximize their effective use, or limit their budget impact. Contrary to Klemp, we consider a MEA to be a policy strategy rather than an arrangement. The foundation of a MEA should be a bilateral contractual agreement between the manufacturer and the payer.

In terms of *reimbursement,* HTA as a formal part of reimbursement decision-making is still under development in Central and Eastern Europe (CEE) and does not seem to be extremely strong or to gain power [15]. Addressing the concern on the *public payer-purchasing price* and *effectiveness* is the next step in the adoption of new pharmaceuticals, by moving forward to regulatory and governance models for financial and outcome risk-sharing, i.e. managed entry agreements.

In this light, our paper has two research questions. Firstly, we aim to find out what is the role of MEAs in CEE countries and the extent of their use. Secondly, we want to find out which drugs are subject to MEAs and to see whether there is a match or not with the ones in Western Europe.

We selected six CEE countries: Bulgaria (BG), Croatia (HR), the Czech Republic (CZ), Hungary (HU), Poland (PL) and Romania (RO). While these countries differ in many respects (e.g. GDP, health spending per capita, organization of health systems etc.) [16], traditionally many policy innovations have diffused to CEE later than in countries of Western Europe (see for instance the limited use of HTA in CEE). It is therefore valuable to see to what extent and how CEE countries adopt and adjust the very recent practice of MEAs.

## 2. Methods

The research questions were explored by developing a framework to conceptualize the kind of objectives countries are trying to achieve through MEAs, based on the types implemented (see Fig. 2). It is built on the taxonomy proposed by Ferrario et al. and maps the role of MEAs in six CEE countries, based on their typology. Subsequently, the conceptual framework was turned into a standardized questionnaire (see Appendix 1, Supplementary material) with general and specific questions, to assess the situation related

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