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MIRACULOUS MEDICINES

HOW TO PAY FOR THEM AND NOT GO BANKRUPT

INESS, Bratislava, October 2020

Cover image: Pixabay

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Summary

The topic of new and expensive medicines will be at the forefront of social debate in the coming years. The amount of resources in the health system is limited, so there must be good mechanisms to allocate these limited resources to different treatments.

The medicines policy in Slovakia is characterised by several aspects:

- Lower absolute spending but higher relative spending on medicines compared to richer EU countries.
- Traditionally, medicines have been targeted by a large (by volume of savings) part of the expenditure review measures, but they have not been implemented.
- Non-compliance with the rules is common, especially by the Ministry - revisions, price referencing, evaluation of conditional categorisation.
- The quality of data on medicine consumption is questionable.
- Nor is there any theoretical preparation for the arrival of new expensive drugs into the system. In the coming years, dozens of medicines will come onto the market that will cost hundreds of thousands of dollars per patient.
- There is a lot of social pressure that leads to unsystematic policy interventions, especially in the area of exemptions.

In the second half of the document, we propose a number of tools to change the situation in medicines policy:

- Finding and picking the low hanging and relatively cheap fruit in the form of better communication with the patient, reducing the combined health and social risk of difficult diagnoses, improving palliative care.
- Linking social and health systems at the communication and competence level, but not at the financial and institutional level.
- Better collection and evaluation of data to inform pharmacoeconomic decisions.
- Strengthening the solidarity function (assistance with catastrophic diagnoses) at the expense of the consumption function (‚everyday' diagnoses).
- Preparing the regulatory environment for innovative ways of financing expensive pharmacotherapy - Managed Entry Agreements, annuity repayments, etc.
- We are opening a discussion on the Innovative Treatment Fund, but we are not coming to a definitive conclusion.

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What to do with miraclous medicines

If it were not for the pandemic, one of the dominant themes in Slovak healthcare would be the availability of new medicines. Stories of children suffering from spinal muscular atrophy, whose parents were on the hunt for the world's most expensive drug, Zolgensma, occupied the headlines for a good part of last year.

For patients it is hope, for politicians a threat. The advent of new super-expensive drugs has the potential to further strain health budgets while increasing voter dissatisfaction with the healthcare system. This text names the main problems associated with the new medicines and suggests possible improvements to the situation.

How it works

Slovak health insurance companies are obliged to reimburse only categorised medicines. Medicines that have already passed through the European-Slovak regulatory system and have proven their pharmacoeconomic benefit. The law (simplified) says that the public health insurance should reimburse the new medicine (i.e. it should be categorised - included in the list of reimbursed medicines) whose additional financial costs per 1 QALY do not exceed 35 - 41 times[1] the average wage two years ago. A QALY represents one year of quality of life gained.

We will explain this principle with an illustrative example.

Currently, patients with cancer X are receiving a drug, we'll call it CHEMO. However, a new drug, BIO, has appeared on the market for this disease. Research has shown that if patients suffering from disease X take BIO instead of CHEMO, they live an average of 4 years longer. However, their quality of life will be reduced by 75% by the effects of the disease. The BIO drug thus delivers 3 QALYs (4r x 0.75). Its price is 100,000 euros, while CHEMO costs 10,000 euros. For 1 QALY, the public health insurance would thus pay 30 000 euros ([100 000 euros - 10 000 euros]/3). The legal limit is €41,533 per QALY in 2020. The BIO medicine will be categorised, i.e. patients will have it reimbursed by the health insurance.

This is a grossly simplistic example. In fact, there are various sub-conditions in the law, as well as categories of medicines that are treated differently ("orfan" medicines). The reality of the benefits of new medicines (additional QALYs) is usually much more pessimistic, and these are more likely to be in the order of tenths of a QALY, i.e. months of life - see the chapter „The wheat from the chaff". In other areas of healthcare (outpatient procedures, diagnostics, etc) QALYs are not measured.

In addition, the medicinal product may be granted an exemption, which is decided by the health insurance company itself at the request of the attending physician. It should be granted when other existing medical options have been exhausted. This sounds like a scientific formulation, but ‚exhaustion of existing options' has a considerable amount of subjectivity in it. The insurer is in a difficult position - on the one hand there is the request of the patient's doctor, on the other the responsibility for value for money and the uncertainty about the effectiveness of the proposed medicine. Every unapproved exemption is negative PR for the insurer, but every approved one is in turn a small hole drilled in the healthcare budget bucket. In the case of an unregistered medicine, the situation is further complicated; it must be authorised by the Ministry of Health. The fact is, however, that most exemptions are approved by insurance companies in Slovakia. In 2018, out of more than 10,000 requests for exemption, 85% were answered in the affirmative[2], virtually identically for all insurers.

1 Depending on the fulfilment of various criteria: Decree 93/2018 Coll. on the criteria for determining the significance of the impact of a medicinal product on public health insurance funds, on the evaluation criteria for calculating the threshold value coefficient and on the details of calculating the threshold value coefficient

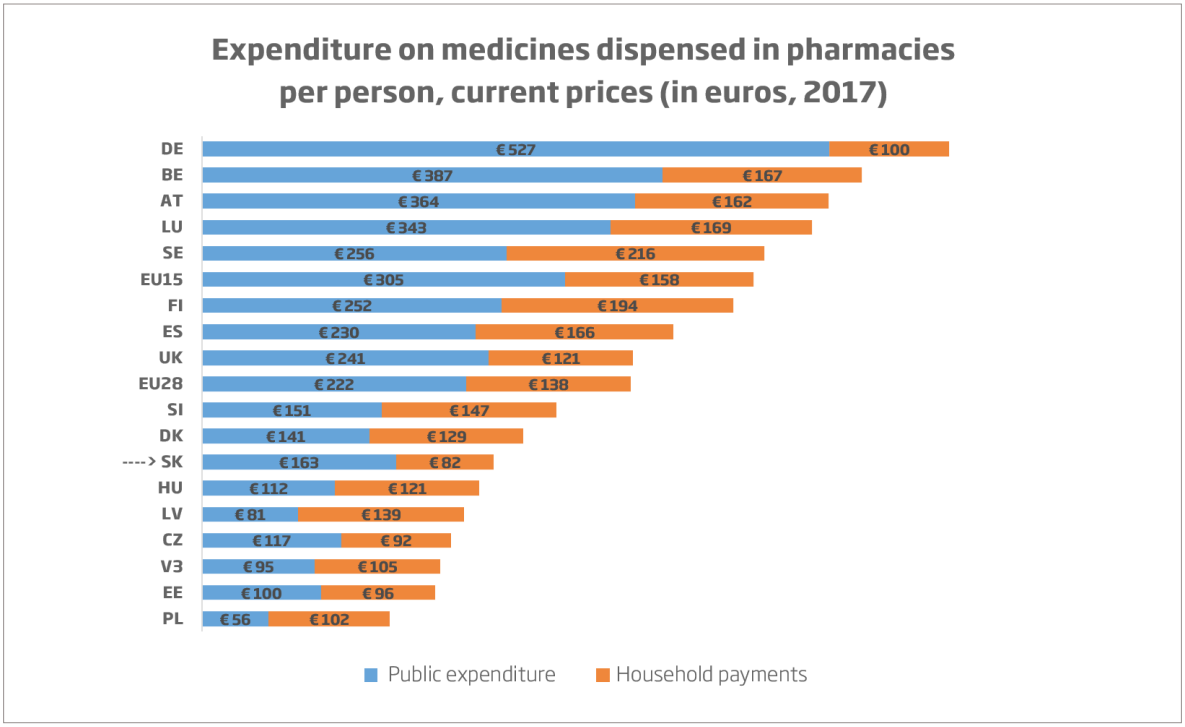
2 Health insurers approved roughly 85% of drug exemption requests last year, In Health, 2019, https://www.webnoviny.sk/vzdravotnictve/zdravotne-poistovne-vlani-schvalili-zhruba-85-ziadosti-o-lieky-na-vynimku/

Problems

Medicines covered by health insurance are associated with several problems that limit their availability for Slovak patients.

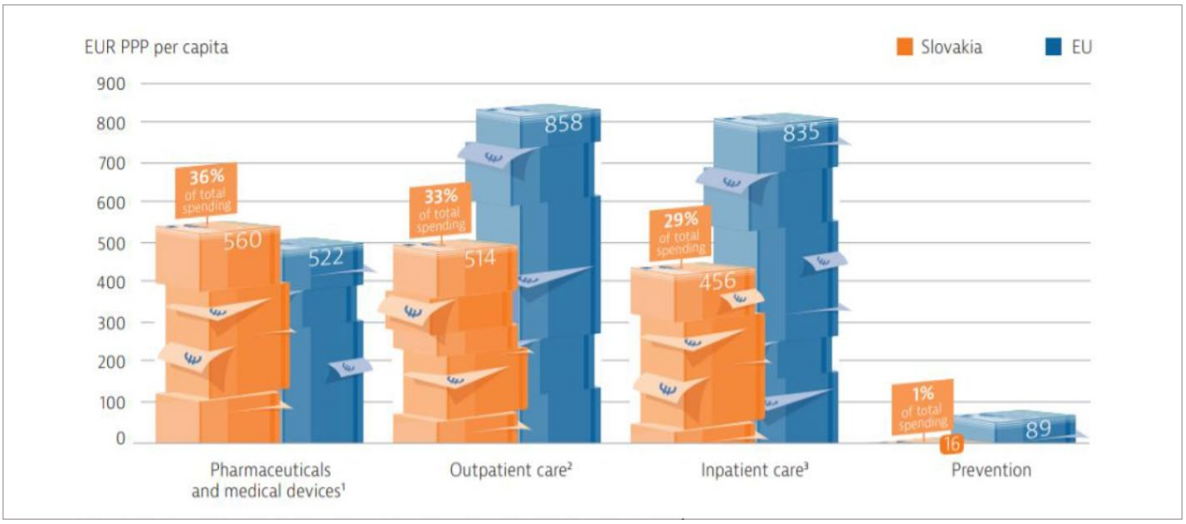
Financial resources

The amount of available financial resources is a major limiting factor for the availability of medicines.



Source: Health Expenditure Review II[3] /OECD

In purchasing power parity terms, according to the OECD, even nominal spending on medicines per capita exceeds the EU average, and while in the EU it accounts for 18% of health expenditure, in Slovakia it accounts for as much as a third.



Source: State of Health in Slovakia - Country Health Profile 2019[4]

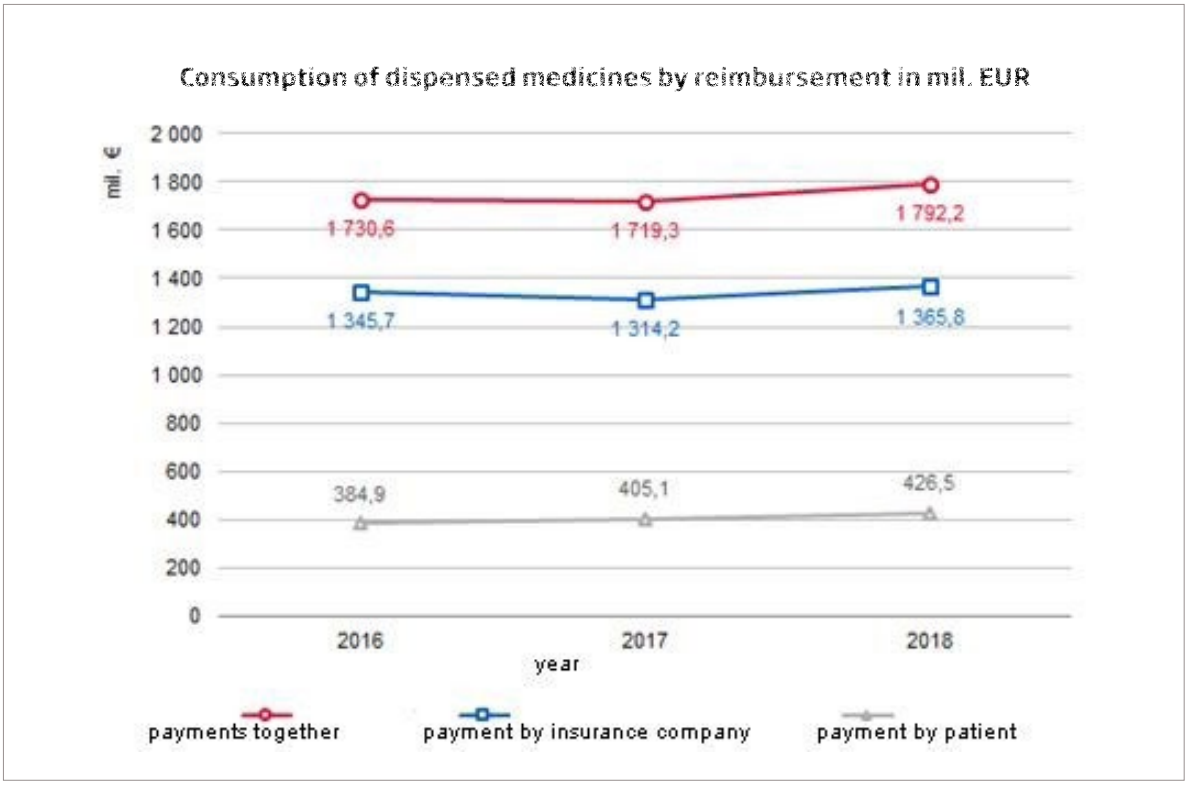
3 Data Annex of the Health Expenditure Review II https://www.mfsr.sk/files/archiv/6/data_uhp_zdravotnictvo_2_zaverecna_sprava.xlsx

4 State of Health in the EU - SlovakiaCountry Health Profile 2019 , OECD, https://www.oecd.org/slovakia/Slovakia-Country-Health-Profiles-2019-Launch-presentation.pdf

There are two problems with this comparison. First, drug prices vary much less in international comparisons than health worker wages and some other cost items. Therefore, poorer countries with lower wages will inevitably have a higher share of the cost of medicines than richer countries. Similarly, the purchasing power parity comparison for medicines is not entirely applicable.

Second, international comparison of spending on medicines is not entirely possible because there are different ways of dispensing and administering medicines (in pharmacies, in hospitals, in specialised centres, in outpatient clinics...) and different countries report them differently. The table below compares expenditure on medicines dispensed in pharmacies. They also show a significant difference with richer countries such as Austria or Germany.

However, the comparison with the Czech Republic, which shows significantly lower public spending on medicines dispensed in pharmacies, is interesting. It can hardly be argued that new medicines would be less affordable in the Czech Republic. To be more precise it is necessary to know the total consumption of medicines, i.e. also outside public pharmacies, since innovative medicines in particular are not usually dispensed through public pharmacies, but are dispensed in hospital pharmacies and administered directly in the facility.



Source: NHIC

Total public reimbursement of medicines amounted to €1.37 billion[5] in 2018, according to the National Health Information Centre, about a third of all public spending in healthcare. In the Czech Republic, 60.2 billion Czech crowns were spent from public sources in 2018, which is 1.1 billion euros when converted to euros and population[6] . Thus, the cost of medicines in the Czech Republic comes out lower than in Slovakia. With the problem of lack of resources, our search for shortcomings cannot end.

5 Consumption of human medicines and medical devices in the Slovak Republic 2018, NCZI, http://www.nczisk.sk/Aktuality/Pages/Spotreba-humannych-liekov-a-zdravotnickych-pomocok-v-SR-2018.aspx

6 Health Accounts of the Czech Republic 2010-2018, Czech Statistical Office https://www.czso.cz/documents/10180/122362658/26000520k5.pdf/d21884d4-e6c0-4ea6-9c79-a8a1fea2b49e?version=1.1

Pressure on spending on medicines

Although the 2020 budget is now just a science fiction publication, a look at the projected spending on medicines is still interesting. Although overall health spending was set to rise by almost 5%, spending on medicines was set to fall by 4%. Four-fifths of the amount of austerity was directed towards medicines.

Such a picture could also be traced in previous budgets. In the case of medicines, most of the shortfalls were identified and subsequently cut in the budget. However, this was due to the relatively higher availability of data on medicines, rather than medicines being objectively the most inefficient component. Medicines are also made a target by the fact that, according to official statistics, spending on medicines accounts for a significantly larger share of total health spending in Slovakia.

Expenditure on medicines dispensed in pharmacies (2017)		
	Share of public (PHC) spending on medicines in public spending on health	Share of pharmaceutical expenditure (PHC + households) in total health expenditure
EU15	9.8%	11.7%
V3	13.1%	20.7%
EN	19.4%	23.3%

Source: Health Expenditure Review II

In reality, however, most of the austerity measures failed to materialise and, as the morbidity of the population did not fall year-on-year by any miracle, this meant minimal to negative economic scope for the entry of new - more expensive - drugs.

Finally, the expected reality for the 2020 budget (October 2020 version) under the heading of medicines includes an amount of €1,116 million, a 3% increase on 2019, and for 2021 it foresees a 1% increase on this amount.

Setting and following rules for saving public resources

The targeting of value-for-money measures on medicines also stems from the fact that it is relatively easy to name shortcomings in this area. There was a recurring problem with the review of drug reimbursement during the 2016-2020 government. According to last year's (2019) statements by the current health minister, we cannot expect a major improvement even with the new government. According to the Minister, "drug reimbursement reviews cannot be done by an excel spreadsheet system[7]". Which is a problem though, because a reimbursement review is nothing but an excel spreadsheet.

Underneath this title is a relatively simple process. The regulator looks at a group of interchangeable medicines (medicines for the same disease), selects the cheapest one and assigns it a zero or very small co-payment. All other medicines, whose market price is higher, have a higher co-payment (the insurance only covers the price up to the cheapest medicine; the difference to the reimbursement of the cheapest medicine is then the co-payment). This is to ensure that the solidarity system only reimburses the most cost-effective treatment, so that there is money left over for others. As medicines come on and off the market, and as prices change, the review should be carried out on a regular basis. In other words, reimbursement review is a process in which reimbursements (payments) for medicines are reassessed and then adjusted - usually downwards - in the light of market forces.

7 Lacey: Drug reimbursement revisions cannot be done by a system of excel spreadsheets, SME, 2019, https://domov.sme.sk/c/22231451/revizie-uhrad-liekov-sa-nemozu-robit-systemom-excelovskych-tabuliek-tvrdi-krajci.html

This process has repeatedly encountered resistance. Indeed, the review may mean that a patient's co-payment for a particular brand of medicine will rise. Example: a patient takes medicine X with active substance A with zero co-payment and an insurance reimbursement of 1 000 euros. A new medicine of brand Y with active substance A has been launched on the market and costs €750. In a review, the maximum reimbursement for the medicine with active substance A is set at €750 because that is how much the cheapest one costs. The patient can switch to medicine Y and it will be available without a co-payment. If he wants to stick with medicine X, he will have to pay a supplement of €250 - unless the manufacturer of medicine X decides to reduce the price to the level of a competitor.

For some groups of medicines, professional or patient organisations argue that these medicines are not interchangeable and that patients will be forced to pay a higher co-payment after the review. Specific examples of (non-)interchangeable inhaled medicines can be found in the link in the note[8] . It is not in our professional capacity to assess the relevance of these objections. However, it is a combination of three possibilities:

A. **Medicines are not interchangeable.** In that case, reimbursement groups should be professionally redesigned. Also, the Health Expenditure Review II warns that the changes to the groups in 2019 have created new systemic problems. However, even in this case, both drugs should meet the principles of cost-effectiveness, i.e. their benefit should match their cost.

B. **Medicines are interchangeable, but changing the medicine is associated with some discomfort for the patient.** For example, the patient has to learn the new dosage. In this case, the costs of both solutions need to be compared - keeping the more expensive medicine vs. the cost to the patient. There is also the question of motivation - should the system take into account a hypertensive patient who is ‚set' on the more expensive drug, if at the same time this patient is not adhering to the lifestyle?

C. **Medicines are interchangeable.** In that case, the cheapest option should be reimbursed.

This issue is largely one of generics and biosimilars, i.e. medicines from a manufacturer other than the former patent holder. The concept of generics and biosimilars is built on scientific foundations, and questioning their very principle, especially by the general public, requires education, including on the part of health professionals and insurance companies. However, unless the health insurance system has built-in incentives for the patient to choose cheaper treatments (e.g. the difference in co-payments) it will be difficult to change it. At the same time, recall that there is a protective cap on co-payments for large groups of patients[9] . It is this that undermines virtually the patient's only motivation (copayment) for reaching for a generic. In addition to patients, equally important - and perhaps even more important - the right incentives are also in place for physicians to choose the cheapest brand of medicine.

But at the top is the setup of the categorization system. The active market entry of generics and biosimilars is one of the keys to saving resources and thus making new medicines more accessible. Unfortunately, since 2016, there has been a significant decline in the entry of new generic medicines on the Slovak market. In that year 296 generics entered the market, the next year it was one tenth less, in 2018 it was 189, in 2019 it was likely even less[10] and according to information from the sector the decline continues in 2020.

8 What is categorisation of medicines, referencing and reimbursement review? , Femme http://femme.sk/index.php/zdravie/zdravie/item/13568-co-je-kategorizacia-liekov-referencovanie-a-revizia-uhrad

9 However, it has its shortcomings. It reimburses top-ups three months in arrears, which for some patients means having to temporarily reimburse several thousands of euros

10 Analysis of the status and opportunities for wider use of generic and biosimilar medicines in Slovakia, INEKO, 2019, http://www.ineko.sk/file_download/1389

There are several reasons for this, but one of the key ones is the so-called "three-threshold" entry, which requires generics to have a radical (up to 45% for the first drug) price reduction compared to the originator drug and continues with mandatory minimum reductions also for the entry of the 2nd and 3rd generics. Also, changes in packaging imply a further obligation to reduce the price as if it were a new medicine - but ironically only for generics, not originator medicines. Since the price in Slovakia affects the price of the medicine in 14 other countries (it enters into their price comparisons), the manufacturer may decide not to enter the small Slovak market at all. The Slovak healthcare system is thus deprived of a cheaper variant of a medicine, thus patients of more affordable medicines and the system of the possibility to maximise the efficiency of spending resources and their useful reallocation.

Another step towards more expensive medicines was the introduction of the fixed co-payment exemption, which was extended this year "due to the coronary crisis".

Fixed surcharge issue

The law has said since 2003 that if the manufacturer reduces the price of a medicine, the manufacturer must share the discount between the patient and the health service so that the proportion of the co-payment does not change. If a medicine costs EUR 100, with EUR 90 being the health insurance reimbursement and EUR 10 being the patient's co-payment, the EUR 10 price reduction must be split so that the reimbursement is EUR 81 (-10%) and the patient's co-payment is EUR 9 (-10%). However, if the co-payment is more than 5% of the average wage (i.e. about 50 euros), this rule does not have to be respected. In 2018, this threshold has been temporarily (until July 2020) reduced to 3%. In April 2020, this temporariness was lifted by the new government under the pretext of a coronary crisis. The change affects 50 reference groups with 141 different drugs, with 34 groups having a no-co-payment substitution, but the Ministry argued the complexity of changing them for another brand during a pandemic, albeit without a published impact study. A problem raised by the umbrella patient organisation AOPP was the presence of even interchangeable medicines, for which top-ups would rise, which could not be made extinct by the deployment of generics. However, this modification will cost the health sector an estimated €10 million and will further reduce price competition in the medicines market[11] , as well as patients' incentives to seek the cheapest brand of medicine, and has significantly reduced the incentive for some of the manufacturers concerned to compete and reduce prices.

The INEKO Institute[12] devoted an extensive study last year to the issue of generics and biosimilars. They noted the possibility to save 59 - 77 million euros per year by their increased use.

The second problem with non-compliance with their own rules relates to the referencing of medicines. Once a medicine is included in the list of categorised medicines, it is subject to what is known by law as 'price referencing'.

In simple terms, it is a comparison of the prices of medicines in all countries of the European Union. The highest accepted price in Slovakia is calculated as the arithmetic average of the three lowest prices among the European Union countries. According to the law, it is to be carried out twice a year by the Ministry of Health, but the law does not specify the exact dates. While in 2019 they took place in January and October,

11 The application of the exemption for the so-called fixed co-payment of patients for medicines has been extended and prolonged, Mediweb, 2020, https://mediweb.hnonline.sk/spravy/aktualne/uplatnovanie-vynimky-na-tzv-fixny-doplatok-pacientov-na-lieky-rozsirili-predlzili

12 Short: Poor use of generics and biosimilars costs us almost 80 million euros a year, SME Blog, 2019, https://ineko.blog.sme.sk/c/517197/slabe-vyuzivanie-generik-a-biosimilarov-nas-stoji-takmer-80-milionov-eur-rocne.html

in 2020 there was no referencing of medicines until September - when one health insurer filed a complaint. For medical devices, at least in 2019, there has been no referencing at all, and for dietetic foods there has not been referencing since 2011. On the other hand, it should be mentioned that the high pressure for low prices sometimes motivates manufacturers not to place medicines on the Slovak market because Slovak prices will affect their prices on other, larger markets.

However, the lack of price referencing rotates the cost spiral. If new, more expensive drugs are introduced on the market and their benefits are compared to the price of existing drugs, which is not decreasing on the Slovak market (although it is on the world market), the cost of treatment gradually increases with each new drug. A separate problem is that prices are compared according to list prices in individual countries, whereas real market prices can (and often are) lower. Discount agreements are usually secret (otherwise in many cases they would not even happen).

The stability of the legislative environment is also worth mentioning in this subchapter. The key Law no. 363/2011 has changed 7 times between January 2018 and June 2020 alone. It takes many months to classify a new medicine and if the rules change several times during this process, the categorisation of the medicine is further delayed or pharmaceutical companies may assess the process as too costly and not go ahead with it at all.

Data quality

As outlined above, data on drug consumption and expenditure is not a trivially available statistic. In Slovakia, there is a well-known case of years of misreported consumption of medicines to the OECD, which erroneously assumed a 15% higher consumption of medicines by Slovaks than after correction in 2018. However, there are still doubts about the quality of the reported data. The Association of Innovative Pharmaceutical Industry demonstrated them with the example of Neorecormon, whose consumption value according to the National Health Information Centre amounts to 54 million euros per year, while the industry's own data speaks of 2.1 million euros, i.e. 96% less[13] . Although such an extreme difference is likely to be rather isolated, overall differences in the order of at least tens of millions of euros cannot be ruled out.

However, the problem is far from being just data on financial flows for medicines, but also clinical data on patients. That is long-term follow-up of the effects of treatment on the patient's quality of life, which would allow the effectiveness of treatment to be evaluated at a later stage. For example, the key National Cancer Registry has not been updated for several years (since 2012) until recently. Data not recorded today will be missing tomorrow.

Horizon

In terms of the cost of medicines, three things are happening in parallel:

New and at the same time expensive medicines are being added. In 2019 alone, the US FDA approved 48[14] „new molecular entities," that is, entirely new drugs. Among them we find Givlaari for the treatment of hepatic porphyria with a price tag of $575,000 per patient per year (lifetime use), Vyondys 53 for the treatment of some types of muscular dystrophy with a price tag of $300,000 per year, Oxbryta for the treatment of sickle cell anemia with a price tag of $100,000 per year, and, of course, a number of biologic drugs for various cancers with a price tag of several tens to hundreds of thousands of dollars per treatment. The year 2019

13 Slovakia has flawed data on spending on medicines, AIFP blog, 2020, https://dennikn.sk/blog/1725508/slovensko-ma-chybne-data-o-vydavkoch-na-lieky/

14 New Drug Approvals for 2019, FDA, https://www.fda.gov/drugs/new-drugs-fda-cders-new-molecular-entities-and-new-therapeutic-biological-products/novel-drug-approvals-2019

was not special in terms of new drugs, there were 59 in 2018 and for the first half of 2020 the FDA approved 25 drugs with a new molecule. Slovak patients will also find their way to these drugs. Finally, we do not even need to go to the US for examples. The European Medicines Agency approved 30 new active substances in 2019[15] , several of them with conditions, indicating their potentially poor pharmacoeconomics. The first of these have also already been rejected by foreign HTA agencies due to limited data and price[16].

Patient expectations are rising. Today's patient can easily access information about the latest treatments in the world. At the same time, in recent years, the options for dealing with this information have expanded - whether in the form of collections, media pressure or with the expert help of several patient organisations.

The number of diseases due to ageing is increasing. Demographic shifts will gradually increase the proportion of people at an age when there is a higher incidence of cancer and other diseases requiring expensive treatment.

Unfortunately, the Slovak health budget reflects these trends only to a minimal extent. There is no active „horizon scanning", i.e. planning for the arrival of new therapies and corresponding medium- and long-term budgeting. According to the head of the The Institute of Health Information and Statistics of the Czech Republic, Ladislav Dušek, just 5 registered gene therapies have the potential to cost the Czech healthcare system roughly 30 billion crowns by 2030[17] - transferred to Slovakia, this would mean roughly 50 - 60 million euros per year, and we are talking about a tiny slice of new drugs. According to calculations by health analyst Martin Smatana, based on data from the Netherlands (Horizonscan Geneesmiddelen), the possible entry of all new oncology and haematology drugs into the Slovak system alone would require 224 - 997 mil. euros per year (the high variance is due to uncertainty about the price and actual consumption of individual drugs).

Wheat from the chaff

A number of new and expensive medicines are gradually coming onto the market. However, far from all of them mean adequate improvement for the patient. Surprisingly many drugs have effects comparable to existing treatments, but cost many times more. Scientific studies have repeatedly highlighted this fact.

The study, published in the May 2020 issue of Lancet Oncology, looked at 47 new cancer drugs for solid tumours from 2009-2017 on the market in the US and four European countries. The study concluded that there was no significant association between the monthly cost of a treatment and its clinical benefits[18] . Another study, published in 2019 in the BMJ, looked at 216 drugs that entered the German market between 2011 and 2017[19] . For 58% of the drugs, they concluded that these drugs had no added value over existing treatments. They also added that although they found added value especially in gene therapy, it concerned a relatively small number of patients.

Even in the case of successful new drugs, we are usually not talking about miracles, but about slight improvements. For example, between 2009 and 2013, the European Medicines Agency authorised

15 EMA Drugs Approved in 2019, Pharma board Room, https://pharmaboardroom.com/facts/ema-drugs-approved-in-2019/

16 Bayer's 'tumor-agnostic' cancer med Vitrakvi turned away in England, Germany , Fierce Pharma, 2020, https://www.fiercepharma.com/pharma/bayer-s-tumor-agnostic-cancer-med-vitrakvi-turned-away-england-germany

17 Medical Journal: Czech healthcare costs could rise by 150 billion by 2030. Where to look for new sources? , 2019, https://ekonomickydenik.cz/zdravotnicky-denik-naklady-ceske-zdravotnictvi-by-mohly-roku-2030-stoupnout-150-miliard-hledat-nove-zdroje/

18 Prices and clinical benefit of cancer drugs in the USA and Europe: a cost-benefit analysis, The Lancet Oncology, 2020, https://www.thelancet.com/pdfs/journals/lanonc/PIIS1470-2045(20)30139-X.pdf

19 No evidence of added benefit for most new drugs, say researchers, BMJ, 2019, https://www.bmj.com/company/newsroom/no-evidence-of-added-benefit-for-most-new-drugs-say-researchers/

48 new oncology medicines for 68 indications[20]. At the time of approval, their use showed prolonged patient survival for a third of the indications (24 out of 68). This life extension ranged from 1 month to 5.8 months, with a median value of 2.7 months. Roughly speaking, those new oncology drugs that had a proven effect on survival added roughly 80 days to patients' lives. In only 7 indications was a substantial increase in patient quality of life demonstrated.

These studies only serve to remind us of the fact that not every new medicine that passes through the regulatory sieve automatically means significant added value for the patient, and even less so for the health system, which has to work with limited resources. A drug bringing a modest but expensive improvement reduces the efficiency of the health system. It is therefore important that sufficiently robust cost-effectiveness assessment mechanisms are in place in the health system to prevent health resources from being over-consumed by the penetration of new but ineffective medicines. And not only introduced, but also used.

Black boxes with exceptions

Medicines that go through the categorisation process are normally covered by health insurance on the basis of the relevant indications and after prescription by a competent doctor. The patient's attending physician may apply to the insurer for reimbursement of the drug on an exception basis. Such a request is internally assessed by a committee of the insurance company.

This process represents a ‚black box', a kind of opaque mechanism for both the patient and the public finances. Health insurers publish general rules for exemptions[21] , for example „documentation of 2 peer-reviewed publications, not older than 5 years" for the requested medicine, but also documentation of previous treatment and its failure. As mentioned above, the vast majority (85%) of exemptions are eventually approved, but patients remain in uncertainty until a decision is made. There is also considerable paperwork and waiting time associated with the process.

Public budget planners have the ambition to annually allocate all health spending into imaginary columns (hospitals, drugs, etc.) and, based on this decision, to estimate the total health resource requirements for the year. However, this has not been systematically done and the sector often needs to be refinanced. One of the many reasons for this is the difficulty in estimating expenditure on exemptions. For this reason too, one of the value for money measures has been to abolish the exemptions altogether. The amendment to Law no. 363/2011 was intended to abolish the reimbursement of medicines by way of exemptions (except for discharged patients) altogether and to move some of them to categorised medicines. However, this did not happen, insurance companies continued to cover exemptions in practically unchanged financial volume (about 40 million euros per year). Although the public often blames health insurers for not reimbursing medicine, paradoxically they do so against the intentions of the (former) Ministry of Health. Sometimes even the manufacturers themselves prefer to keep their medicine on the Slovak market outside the categorisation, as this allows them to achieve a higher price.

The 2021 budget (published in October 2020) even specifically mentions 'providing medicines for patients with muscular atrophy'. It probably does not need to be explained at length that if a specific single rare diagnosis

20 Availability of evidence of benefits on overall survival and quality of life of cancer drugs approved by European Medicines Agency: retrospective cohort study of drug approvals 2009-13

BMJ 2017, https://www.bmj.com/content/359/bmj.j4530

21 Example from GHIC: Criteria used by the General Health Insurance Company, a. s. in approving the reimbursement of a medicinal product, medical device (MDA) or dietetic food (DP) in accordance with Section 88(7) of Act No. 363/2011 Coll., as amended, provided in the framework of outpatient health care https://www.vszp.sk/files/poskytovatelia/zdravotna-starostlivost/zoznam-liekov/zoznam-liekov-ktore-hradi-vszp-nad-ramec-kategorizacie/vseobecne-kriteria-uhradu-liekov-dp-nad-ramec-kategorizacie.pdf

appears directly in the budget, it is a deeply unsystematic move. Instead of a comprehensive solution, the problem is being further crumbled and the Ministry is trying to save the situation by micromanaging, which it cannot manage.

There are demands and promises from some members of the public, as well as from the Ministry, to make the area of exemptions more systematic. However, expectations should not be exaggerated. Systematisation of exemptions is logical nonsense. An exception is therefore an exception because it is beyond systematisation. What is systematic is the categorisation of medicines, i.e. the standard procedure. If a medicine is requested by way of an exception, there are two possibilities. Either the medicine did not make it into the categorisation process at all, in which case the question is why - flaws in the categorisation process? Is it the lengthiness? Is it lack of interest from the manufacturer due to the low price because of mandatory referencing? Or did it get into the categorization process and not go through it. But then the question is what the reasons for pushing it through the exemption are. Therefore, exemptions should primarily be limited to newly registered medicinal products that have not yet been categorised and to medicinal products that are unavailable in Slovakia.

Solutions

It is not the ambition of this text to solve all the problems of medicines policy. Nor is that possible - the reality of limited resources is and always will be most visible in the health sector. Health is priceless, but health services and goods have a price tag. Therefore, the following ‚solutions' are more of a hint as to where to go in the coming years.

It is not only medicines that keep the patient alive

The first "solution" is non-medical. The demands of patient organisations include not only greater availability of new treatments, but also things like patient management and roadmaps, improved doctor-patient communication, waiting times and psychological support[22] .

Such changes do not have to cost a significant amount of resources; on the contrary, in many cases they can save resources (e.g. by reducing duplicate examinations). However, they require management-intensive system changes. In many areas of the Slovak health system, the bureaucratic principle of functioning persists, as in the offices. It is based on a pyramid of power in which the satisfaction of the superior is important and in which the client (patient) is a statistic. It is only when the client-patient becomes a value-bearer for the institutions that the system will adapt to him. Until then, improvement depends on manual interventions by politicians, which are short-lived. But the patient himself must also move within clear boundaries set by the amount of exhaustible resources in the system. The decades-long populist education of the citizen-patient in the sense of ‚all things to all men' is one of the reasons for the problems in the healthcare system. The patient should have the tools to meet his or her demands, but these are based on clear rules.

Better linking health and social systems

The onset of a serious illness or injury is often not only a health problem, but also a social problem. The patient is faced with bureaucratic paperwork and waiting for statements from the authorities. Long-term care and palliative care, which combines both medical and social aspects, is also a major issue. At present, in these areas, there is no definition of the patient's entitlement, no clear division of responsibilities between the various institutions, and no corresponding flow of money. The result is patient ping-ponging between health and social care providers, or the use of expensive acute beds in hospitals for long-term care.

22 For example, the June Memorandum of Oncopatients' Organisations: Patients' Organisations' Demands for Improving the State of Oncology in Slovakia 2020 https://www.nierakovine.sk/files/2020/presscentrum/2020-06-26-onkologia-na-slovensku-2020-poziadavky.pdf

The issue of better communication between the social and health systems is not just a question of easier administration and client experience. More successful treatment means not only improved health but also cost savings for the social system, for example in terms of shorter sick leave, avoided disability or less dependency for patients. However, these cost savings are not passed back to the health system. On the initiative of some experts in Slovakia, studies are already underway to look at the complex financial impact of certain diagnoses[23] . These could theoretically be the basis for future decisions on the categorisation of certain medicines, or at least for the prioritisation of diagnoses on the basis of their impact.

In reality, however, this approach (linking the costs of the social system to the health system) will inevitably encounter a number of obstacles that are difficult to overcome. Let us put aside the technical difficulty of such a step, which would overcome everything that public administration in Slovakia has gone through so far. The logic of the two systems is different. The social system is batch-based and largely merit-based. There is no examination of cost-effectiveness and no examination of the benefits, only of the contributions to the system and the achievement of the statutory status (e.g. retirement age). The health system has elements of an insurance system (it insures a risk that may or may not occur) and a cost-benefit analysis of expenditure is possible. It maximizes health benefit per euro of cost, nothing is maximized in the social system it is just a flow-through heater. There is also the question of estimating the actual secondary costs of an illness or some medical condition. One could start to calculate the environmental impact of illness, the impact on education, the impact on national security, and the calculation could be extended further. The financial health of the social system is also an issue. The ageing of the population is also widening the budget holes here, and we can expect a political drive to keep all the saved resources (resources saved by health care) in the Social Insurance Agency, as they will be used to replenish pensions, for example. Moreover, the idea that a patient with a prolonged life will save the social security system resources is very simplistic. This saving applies mainly to patients of pre-retirement age (extending the life of pensioners does not save the social security system any money) and to diagnoses that do not end in disability (treatment does not end in the receipt of a disability pension). In Slovakia, it is possible to have both a disability pension and employment, so that the return of a treated (but disabled) patient to employment may not mean a reduction in social spending (although it does mean income from other taxes due to the patient's higher productivity after treatment).

For these reasons, we do not consider it productive to consider financially and institutionally linking the two systems. However, there are significant benefits to be gained from better communication between the two systems, client management at the points of contact and clarification of client entitlements, as well as clarification of the responsibilities of the two systems.

Better data and evaluation

Value-for-money decision-making in medicines policy and in healthcare as a whole will be a theoretical exercise unless it is data-driven. Unfortunately, in many areas, Slovakia is starting from practically zero. An example is the aforementioned National Cancer Registry, which has gradually become bogged down by manually processed and inaccurate reporting, and is now, after a long time, starting to get going again. However, without information on how (not only) cancer is evolving in the population, it is difficult to make predictions about future costs or prioritise resources. On the one hand, there are drugs for which there is at least some assessment of effectiveness, but alongside drugs, medical technologies or interventions consume resources for which no one assesses effectiveness[24] . However, it is likely that extending cost-effectiveness evaluation to other areas of healthcare would subsequently force major changes in the direction of finance.

23 Blood cancers, depression, asthma... See e.g. Blood cancer: experts reveal advances and shortcomings. Slovakia still has some catching up to do, Rakovinakrvi.sk, https://www.rakovinakrvi.sk/wp-content/uploads/2019/11/TS_Odha%C4%BEme-rakovinu-krvi_2019.pdf

24 Recently, experts have been pointing out, for example, the redundancy of pre-operative examinations: an anaesthesiologist in Germany: In Slovakia, money and time are wasted on unnecessary preoperative examinations, Denník N, 2019, https://dennikn.sk/1649639/anesteziolog-v-nemecku-na-slovensku-sa-mrha-peniazmi-aj-casom-na-zbytocne-predoperacne-vysetrenia/

On the other hand, the threat is self-serving data collection that will burden providers, provide no incentive for a consistent approach to reporting, and that will make no practical use of the data collected, except for the obligatory yearbooks with statistical summaries.

Recently, the creation of a Health Technology Assessment (HTA) agency to assess the added value of new medicines and health technologies has been a frequently raised issue. The current Ministry of Health is supportive of the creation of an HTA, the Department of Health Technology Assessment was reborn in the Ministry in July 2020 and the HTA agency itself is due to be established by the end of 2021[25]. Leaving aside the question of whether such an institution will be able to be staffed (especially if the Health Policy Institute, which could have fulfilled many support functions, has practically collapsed at the same moment), there is still the question of the autonomy and power of such an institute to make decisions on sensitive issues of the entry of new treatments into Slovakia.

The third area we will dwell on in this chapter is the categorization process itself. In this process, the members of the committee decide on the inclusion of medicines in the list of reimbursed medicines on the basis of the pharmacoeconomic background of the medicines. The categorisation process is doomed to be criticised because it involves a multitude of interests (patients, pharmaceutical companies, public finances, and insurance companies) that are not fully satisfied by any arrangement of the process. For inspiration, we refer to Transparency International's 2016 recommendations[26] . From INESS' point of view, these recommendations are unrealistic on some points (it is not possible to set up the commission in such a way that there are no large-scale conflicts of interest, and at the same time salary incentives do not have a chance to trump possible „offers" from interest groups), but we agree with several of them (more detailed tracking of the consumption of medicines after they are introduced versus estimates, disclosure of decisions and their details).

Consumption vs. insurance

In many people's minds, a universal health insurance system plays a solidarity role - it is supposed to ensure that people have access to health care in all circumstances. At the same time, the needs of the individual are balanced against the needs of society. In legal terms, the right to health care is a second generation right[27] and its form derives from economic possibilities (as opposed to, for example, the right to life). The cornerstone for decision-making is then the cost-effectiveness of specific health interventions[28] . However, another function has been added to the solidarity function and has gradually outgrown it - the consumption function. Health insurance reimburses patients for procedures even in situations where they would have no problem paying for them. This is mainly to deal with simple, often recurring health situations such as various colds, indigestion or minor injuries. This not only leads to overuse of these services, but it also reduces the amount of resources available for catastrophic situations such as cancer, heart attacks, or serious injuries.

People use their own resources to buy vital food, water and clothing. There is no reason why they should not be able to buy common medical supplies in the same way. This also applies to medicines - reimbursement for a number of drug items (often a euro or two worth) reduces the total amount of resources that are equally

25 The Ministry of Health of the Slovak Republic has the ambition to create an HTA agency by the end of 2021 at the latest , Lekari.sk, 2020, https://lekari.sk/denna-sprava/MZ-SR-ma-ambiciu-vytvorit-HTA-agenturu-najneskor-do-konca-roka-2021-31835.html

26 Analysis of decision-making and transparency of advisory bodies of the Ministry of Health in the process of categorisation of medicines, TIS, 2016, http://www.transparency.sk/wp-content/uploads/2016/08/TIS_-Kategoriz%C3%A1cii-liekov-ch%C3%BDba-viac-transparentnosti-a-profesionality.pdf

27 Three generations of human rights, Wikipedia, https://en.wikipedia.org/wiki/Three_generations_of_human_rights

28 A human rights-based approach to the reimbursement of expensive medicines, Bulletin of the World Health Organization, 2016, https://www.who.int/bulletin/volumes/94/12/15-166371/en/

used to buy expensive modern treatments for serious illnesses[29]. At the same time, patients in Slovakia already pay, partly voluntarily, partly out of ignorance, about 65 million euros a year for medicines that have cheaper substitutes[30] .

Unfortunately, developments in Slovakia suggest rather a move towards supporting the „consumption" role of the insurance system. A real discussion on co-payments or the exclusion of certain medicines and services from the list of covered services is practically non-existent today. On the contrary, a number of recent measures tend to promote the illusion that a solidarity-based health system can provide everything to everyone for free. In particular, we are referring to the extension of fixed co-payment exemptions[31] or the complete exemption from co-payments for medicines for a large part of the population[32], which will cost a budgeted 49 million euros in 2021[33] .

There are already commercial financial instruments that allow some form of increased access to treatment for the majority of the population. These are various forms of critical illness insurance, which (usually in combination with life insurance) offer the possibility of paying out a larger sum of money in the event of a serious diagnosis from a pre-determined list of diseases. There are also insurance policies targeting only cancer, where the sum insured is released gradually over the course of treatment[34] . This is a convenient tool only for a part of the population (rather young and middle-aged, healthy) but such thinking should also be in the armoury of the patient-consumer. The state should guide people to recognise that a common package cannot cover everything for everyone, and the citizen should also assess his individual financial and health risks and take appropriate action against them.

Health insurers could be an important intermediary in this effort to involve everyone in health management - and the internal logic of the Slovak system is built on this idea. However, the current set of rules does not allow insurers to offer long-term products in which they share in the long-term health gains and costs of their clients. The client can re-insure each year and take all of their health investments with them. In no small part, this also relates to the issue of new expensive drugs. An insurance company has little incentive to invest in individual clients beyond what the law commands (and what potential negative publicity forces it to do) if it cannot share in the long-term benefits of that investment.

Solutions for "black boxes" with exceptions

It is not realistic to expect that all medicines that appear on the market will have perfectly mapped efficacy and that decisions on their inclusion will be guided solely by value for money principles. There will always be both a scientific and a political interest in having medicines in the system for which cost-effectiveness cannot be sufficiently evaluated.

The traditional argument is that low levels of information are a tax on the entry of innovative medicines. Without the pioneers, there would be no progress. Clinical trials take years and don't always yield enough data to assess a drug's effectiveness. Take the example of Zolgensma, a drug that costs over two million euros with a (single) application and does not yet have sufficient data to assess its effectiveness[35].

29 The specific form is up for discussion. Direct payment for inexpensive drugs may motivate patients to use more expensive drugs/other procedures. Some cheap drugs have very high health benefits at a very low cost. Therefore, an alternative may be, for example, to use rather an annual total patient co-payment (e.g. up to €120 per year, irrespective of the service used), as in the Netherlands or other countries.

30 Health spending review II

31 The issue of fixed co-payment described e.g. here Exceptions to fixed co-payment for medicines will continue, Genas criticises it, SME, https://ekonomika.sme.sk/c/22423472/vynimky-na-fixny-doplatok-za-lieky-budu-aj-nadalej-genas-to-kritizuje.html

32 Zero top-ups for children and pensioners, while these groups are already protected by the cap on top-ups.

33 Draft general government budget 2021-2023 (October 2020 version)

34 Based on the calculator of one of the insurance companies, the insurance of all malignant tumours for the amount of 50 000€ for a 35-year-old man costs about 10€ per month, for a 55-year-old woman it costs 63€ per month, the group of the most common tumours costs 22e. The insurance is negotiated for 5 years.

35 Spinal Muscular Atrophy UK, https://smauk.org.uk/key-zolgensma-clinical-trials

Its standard reimbursed alternative is the drug Spinraza. A dose of it costs roughly €80,000, with 6 doses to be administered in the first year and one every three months thereafter. As the disease progresses, it becomes more expensive to administer, as it is injected directly to the spinal cord[36] . If Zolgensma's „miracle" effect is confirmed, it would be cheaper than Spinraza in the long run - not only because of the cost of the drug, but also because of the lower dependency of the patient and thus less- burden on the social system. Recall that the „old" Spinraza came on the market in December 2016 and is also a highly innovative drug. However, there are medical opinions that it is advisable to combine treatment with both preparations[37], which further complicates the situation, so we ask the reader to consider this example as illustrative only.

The problem, however, is that once drugs enter the market, it is very difficult for them to leave it, even if they do not prove their effectiveness afterwards. The aforementioned study in the BMJ[38] found that of the 39 cancer drugs that entered the market between 2009 and 2013 without demonstrating- the life extension or quality of life improvements, up to 33 did not demonstrate these even after more than three years of use. Similarly, studies[39] of drugs accepted on an accelerated basis or on the basis of ancillary indicators only into the US market show that additional studies confirming drug efficacy (especially life extension) are not very numerous.

There is an opportunity to formalise more the current system for approving exemptions. But the very definition of the word „exception" is based on uniqueness; it is not possible to apply a simple blanket rule. There are also views that exceptions should be decided by the doctor alone. But this is also problematic. The primary role of the physician is not to judge the pharmacoeconomic effectiveness of a medicine (but not without limits, the Law 362/2011 on Medicinal Products enshrines the physician's duty to prescribe expediently and economically), but to improve the patient's state of health as much as possible. Without an assessment of the economics of a medicine, the whole categorisation would be meaningless and doctors would be able to prescribe any medicine, device or therapy at their discretion. Perhaps needless to say, in such a case, the system would quickly collapse as a result of the depletion of resources. A more viable alternative is independent consilia. This option also poses problems - from the ability to get truly independent experts to the logistical ones (lots of exceptions).

So what are the other theoretical solutions?

Managed Entry Agreements and innovative reimbursement methods

The cumbersome Slovak translation of „managed entry agreement" (MEA) means that the medicine is reimbursed in a way other than a simple „price per unit". There are two types of MEAs - financial and performance-based. For financial ones, these are, for example, negotiated non-public price discounts, or maximum financial payment volumes for a medicine, either per patient or per whole population.

Performance-based MEAs are arrangements where treatment outcomes are tied in some way to drug payments. A new drug is deployed, paid for, but when the treatment does not achieve the expected results, a portion of the drug price is returned to the payer - or conversely, a bonus payment is negotiated when

36 Spinraza - the first specific therapy for patients with spinal muscular atrophy, collective, FN Brno, https://www.fnbrno.cz/spinraza-prvni-specificka-terapie-pro-pacienty-se-spinalni-svalovou-atrofii/t6311

37 Spinraza-Zolgensma Combination Well-tolerated in Children with SMA Type 1, Study Shows, SMA News Today, 2020, https://smanewstoday.com/news-posts/2020/07/31/spinraza-zolgensma-combination-well-tolerated-in-children-with-sma-type-1-study-shows/

38 Availability of evidence of benefits on overall survival and quality of life of cancer drugs approved by European Medicines Agency: retrospective cohort study of drug approvals 2009-13

BMJ 2017, https://www.bmj.com/content/359/bmj.j4530

39 Assessment of the Clinical Benefit of Cancer Drugs Receiving Accelerated Approval, JAMA Intern Med, 2019, https://pubmed.ncbi.nlm.nih.gov/31135808/ or Postapproval studies of drugs initially approved by the FDA on the basis of limited evidence: systematic review, BMJ 2017, https://pubmed.ncbi.nlm.nih.gov/28468750/

successful outcomes are achieved. It is this model of payment for medicines that could open the door to innovative medicines while avoiding inefficient spending. Although performance-based MEAs are a popular topic of discussion, they are also a bit of a unicorn - everyone knows about them, but few have seen them.

In recent years, a new (sub) group, referred to as service-based[40] MEA has also started to emerge. In addition to the medicine itself, the supplier undertakes to provide certain services (patient education, health professionals, patient monitoring, etc.).

Indeed, existing reviews of closed MEAs from around the world show that the vast majority are financial MEAs. Only Italy[41] , England or the USA has more performance-based agreements. For example, a 2017 study[42] tracking MEAs in Central and Eastern Europe found only 10 performance-based MEAs among some 700 agreements.

There appears to be less willingness to enter into such contracts on the part of regulators rather than producers. This is due to the complexity of such contracts[43]. The problems cited are the disparity and low number of patients, the problem of patient data collection and motivation of health professionals (the administrative burden has sometimes led to performance MEAs being gradually replaced by financial MEAs rather[44]), the lack of a legislative mechanism to phase out a drug, or the lack of experts[45] for systematic evaluation in the country. Italy also owes its high prevalence of performance-based MEAs to its established and functioning patient registries, which are also used to assess the impact of medicines on health status and the subsequent evaluation of MEAs[46] . However, a high prevalence of MEAs does not necessarily imply significant resource savings, as demonstrated in Italy. A 2015 study showed that only 5% of the funds spent on medicines that were part of MEAs were returned to the Italian system[47] .

Amendment no. 336/2017 to Law no. 363/2011 on the scope and conditions of reimbursement of medicinal products opened legal possibilities for the establishment of such contracts in Slovakia from 2018. In addition, Slovak legislation also recognizes the so-called categorization with a condition, which is a certain simple form of MEA. The principle is an estimation of the consumption of a given medicine in the Slovak reality in the next year. If these theoretically estimated costs for the purchase of the medicine are exceeded in reality during the year, the manufacturer of the medicine (the registration holder) will reimburse the excess amount to the health insurance companies[48]. However, in the Slovak reality there may be problems with the evaluation of such contracts. Since October 2016, when the first conditional inclusion period of a medicine was terminated, the Ministry of Health has not acted. Medicines are not evaluated and no refunds

40 Managed Entry Agreements: Policy Analysis From the European Perspective, Value in Health, 2020 https://www.sciencedirect.com/science/article/pii/S1098301520300413

41 Managed Entry Agreements for Oncology Drugs: Lessons from the European Experience to Inform the Future, Front Pharmacol. 2017, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5378787/ innovative payment models for high-cost innovative medicines, EC, 2018, https://ec.europa.eu/health/expert_panel/sites/expertpanel/files/docsdir/opinion_innovative_medicines_en.pdf Performance-based managed entry agreements for new medicines in OECD countries and EU member states, OECD Health Working Papers , 2019, https://www.oecd-ilibrary.org/social-issues-migration-health/performance-based-managed-entry-agreements-for-new-medicines-in-oecd-countries-and-eu-member-states_6e5e4c0f-en

42 The Implementation of Managed Entry Agreements in Central and Eastern Europe: Findings and Implications, PharmacoEconomics 2017, https://www.researchgate.net/publication/319257328_The_Implementation_of_Managed_Entry_Agreements_in_Central_and_Eastern_Europe_Findings_and_Implications

43 Managed Entry Agreements for Pharmaceuticals in the Context of Adaptive Pathways in Europe, Front Pharmacol. 2018, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5881456/

44 Dealing with uncertainty and high prices of new medicines: A comparative analysis of the use of managed entry agreements in Belgium, England, the Netherlands and Sweden, Social Science & Medicine, 2015, https://www.sciencedirect.com/science/article/pii/S0277953614007266

45 Managed Entry Agreements for Pharmaceutical Products in Middle East and North African Countries: Payer and Manufacturer Experience and Outlook, Value in Health Regional Issues, 2018, https://www.sciencedirect.com/science/article/pii/S2212109918300980

46 Managed Entry Agreements for Oncology Drugs: Lessons from the European Experience to Inform the Future, Front Pharmacol. 2017, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5378787/

47 Managed Entry Agreements: Policy Analysis From the European Perspective, Value in Health, 2020 https://www.sciencedirect.com/science/article/pii/S1098301520300413

48 Decision-making on the conditional inclusion of a medicinal product in the list of categorised medicinal products and the official determination of the price of a medicinal product https://www.lewik.org/term/380/rozhodovanie-o-podmienenom-zaradeni-lieku-do-zoznamu-kategorizovanych-liekov-a-uradnom-urceni-ceny-lieku/

are reimbursed. According to insurance companies, there are 28 medicines that have not been evaluated. It was only in March 2020 that a decision was made to evaluate the Keytruda drug and its registration holder had to return €2.5 million to the health insurance system.

The experts contacted by the authors point to the problems that have accompanied this system since its inception (twice amended unworkable formula for setting the reimbursement ceiling, initiated proceedings terminated without result, etc.) and the administrative obstacles that have brought the whole system of conditional categorisation to a dead end, when it was supposed to be one of the key mechanisms for controlling the costs of new medicines.

The issue of MEAs also depends in no small part on how the country's waiver system works. If there is a higher chance of getting full price through exemptions, drug suppliers will have no incentive to enter the market at a lower price through MEAs.

MEA and other innovative reimbursement methods will be the key, particularly in the area of gene therapy. The latter has several specificities. These therapies often involve the administration of a single dose of an extremely expensive substance; associated with significant risks of failure and with (as yet) poorly available data on long-term effects and risks. Therapy cannot be discontinued as with conventional drugs. It therefore represents an extreme financial risk, especially for diagnoses where conventional treatments are also available. Standard reimbursement models are not suitable for such treatment, but there are already annuity models emerging around the world, for example (the drug manufacturer receives payment for each year of the patient's life, etc.). For more information, see the literature note[49].

Innovation Fund

A rare solution that we have only identified to a greater extent in the UK[50], the Cancer Drugs Fund[51] , operated outside the UK NHS between 2011 and 2016. Its role was to fund innovative treatments that did not pass through the NHS sieve. With a budget of £200 million a year, it funded treatment for roughly 100,000 patients.

In 2016 it was transformed and became part of the NHS. The budget has been increased to £340 million per year but is fixed and participating pharmaceutical companies pay a rebate if they exceeded the agreed spends. Between 2016 and 2019, around 37,000 patients received 78 medicines funded by this fund. The Fund entered into 31 different MEAs during this period[52] .

This form of funding makes it possible to formalise ‚exemptions' and better control budget spending on them, and allows for a better link between science and research and practice by connecting patients to the same medicine. But even such a solution is not without its critics. It has been described by some experts as "a huge waste of money" and the result of „intellectual laziness[53] „. It has also been accused of poor handling of patient data or populism, as it is focused only on oncology drugs. The main problem, however, was that the fund consistently went well over its budget[54], thus denying one of the purposes of its existence (controlling the cost of new drugs). Some reservations were addressed by the 2016 reform. But great caution is in order with any fund, as it is difficult to set the right incentives (the fund manager is motivated to spend

49 Gene therapy ante portas -Thora Mrosowsky & Prof. Dr. med. Matthias P. Schönermark, Welt der Krankenversicherung, 2017, https://skc-beratung.de/files/publications/2017_gentherapie_ante_portas_en.pdf

50 There is also a reference to the Belgian Fund in Dealing with uncertainty and high prices of new medicines: A comparative analysis of the use of managed entry agreements in Belgium, England, the Netherlands and Sweden, Social Science & Medicine, 2015, https://www.sciencedirect.com/science/article/pii/S0277953614007266

51 Background info: the NHS website https://www.england.nhs.uk/cancer/cdf/

52 The UK's Cancer Drugs Fund: a model for access and reimbursement? Pharmaceutical Technology 2019, https://www.pharmaceutical-technology.com/features/cancer-drugs-fund-nhs-reimbursement/

53 Cancer Drugs Fund 'huge waste of money', BBC, 2017 https://www.bbc.com/news/health-39711137

54 Cancer Drugs Fund: Twentieth Report of Session 2015-16 https://publications.parliament.uk/pa/cm201516/cmselect/cmpubacc/583/583.pdf

resources at any cost) and can easily become an open purse for ineffective drugs and the unsystematic favouring of patients with particular diagnoses at the expense of others.

Centre-based medicines

The third option is not so much a stand-alone idea, but rather a combination of the aforementioned options for dealing with expensive new drugs. It can be illustrated with the example of the Czech Republic. Since 2008 there has been a category of highly innovative medicinal products[55] . They have to be designed to cure hitherto untreatable serious diseases, or they have to fulfil several conditions (prolongation of median survival by at least two years, reduction of serious side effects by 40%[56], etc.). These medicines can only be administered by specialised centres (about 140 in the Czech Republic), which report them as 'separately billed medicinal products'. Patients have the chance to get treatment earlier without the need for individual treatment approval. Health insurers can negotiate with the manufacturer to limit costs during the temporary reimbursement period and, based on the information obtained on the effectiveness of the treatment, can subsequently resolve price negotiations for the award of permanent reimbursement. Patients are concentrated in centres and specialised registers are maintained for them (23 in 2017, also sharing data with the registers of professional societies), which allow the effectiveness of treatment to be assessed. They are jointly managed by insurance companies and the Institute of Biostatistics and Analyses of the Faculty of Medicine of the Masaryk University in Brno.

The Czech Republic is currently working on an amendment to the law that should further expand the possibilities for new medicines to enter the market, especially through the centres[57] . Of course, this is not a „solution" to limited resources either. The cost of centre-based medicines in the Czech Republic is growing very fast, between 2010 and 2017 it increased 2.5-fold and in 2018 it already reached CZK 17 billion (approx. EUR 320 million in Slovak real terms) with an annual treatment of approx. 60,000 patients. But the growth is planned; it happens that the budget allocated for the centre treatment is not even fully used by the insurance companies[58] . A slight controversy is also caused by the distribution of funds among diagnoses[59] .

"Centres" also exist in Slovakia, but they lack a more precise definition, minimum requirements, etc. Therefore, the list of facilities that can indicate specific drugs in their scope (from university hospitals to private clinics) raises questions.

Compliance with existing rules

In the previous text, we have mentioned several situations in which the state neglects certain activities. These are mainly the review of expenditure, the referencing of prices (not only of medicines but also of medical devices and dietetic foods), and the evaluation of conditional reimbursement. These problems have been repeatedly highlighted by the spending review. Together, they have the potential to save the system tens of millions of euros, which could be used in other ways. If these rules are causing other problems, the solution is not to ignore them but to fix them so that the system operates according to the law.

55 Highly Innovative Medicinal Products with Registries - a balance of five years of experience, Doc. MUDr. Karel Němeček, CSc., JUDr. Ladislav Švec, Ing. Karolína Kreuterová, Remedia, 2017, http://www.remedia.cz/Okruhy-temat/Management-v-medicine/Vysoce-inovativni-lecive-pripravky-s-registry-bilance-petiletych-zkusenosti/8-1b-2hA.magarticle.aspx

56 Innovative payment models for high-cost innovative medicines, EC, 2018, https://ec.europa.eu/health/expert_panel/sites/expertpanel/files/docsdir/opinion_innovative_medicines_en.pdf

57 Highly innovative drugs should be available as early as next year, Healthy News, 2019, https://www.zdravezpravy.cz/2019/07/03/vysoce-inovativni-leky-by-mely-byt-dostupne-jiz-pristi-rok/

58 Health insurers missed budgets for centre drugs in 2017, Open Health, 2018, https://www.otevrenezdravotnictvi.cz/novinky/zdravotni-pojistovny-nevycerpaly-rozpocty-na-centrove-leky-za-rok-2017.html

59 Centre drug budgets for 2019, Open Health, https://www.otevrenezdravotnictvi.cz/novinky/rozpocty-na-centrove-leky-pro-rok-2019.html

Conclusion

The scissors between the theoretically best pharmacotherapy and the resources available to purchase it will be blurred in the future. In a world of limited resources, it is impossible to close this gap. However, it is possible to build a system that can give patients clearer treatment boundaries facilitate the entry of effective expensive drugs and eliminate ineffective ones, while protecting the healthcare system from collapse from the large expenditure on these drugs. An important step is to educate citizens about the need for individual investment in health and about the difference between routine consumption and catastrophic health events. It will be no small task to depoliticise this system, which is full of emotion and tempts politicians to unsystematic interventions.

About author

Martin Vlachynský works as an INESS analyst since 2012. He earned MSc in economic policy from Masaryk University in Brno and MSc in economics, management and international relations from Business School at the University of Aberdeen. He mainly focuses on business environment, competitiveness and state interventions.

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