Actualities of Hungarian pharmaceutical financing market

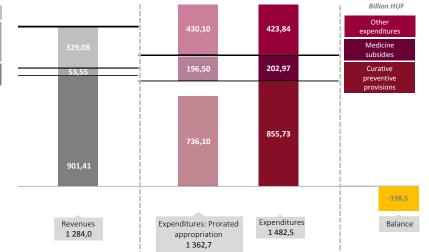
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Decision-making index, June 2020 NIHIFM decisions Activity of Parliament 39,09 Legislation Product offering

Macro approach to financing healthcare and medicinal products

Balance of the Health Insurance Fund, June 2020

pring accumulations running out,



Source: Healthware analysis based on NHIFA data

Burden of disease analysis

The indirect costs of therapies can currently be validated in only a limited way in health economic analysis made from local financing viewpoint. However, in other levels of decision making the cost analyses, which are made in social approach, can include objective and well communicable messages. These details can aid in forming of preferences between different healthcare technologies. By way of data-request from OEP we provide the summing up of the following information:

- Demographic and epidemiologic characteris-
- Dispersion of patients by disease severity
- Cost analyses (on data of prescr., inpatient and outpatient care, labs and diagnostic services, hospice, sickness benefit)

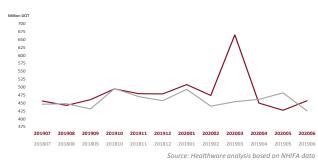
We suggest the patient survey method to define the patients indirect costs and the other state expenditure

- · Sickness absence costs
- · Home remodeling costs
- Informal care
- Other indirect burdens

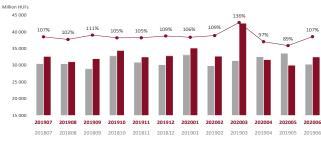
<u>link</u> **(iii)**

Pharmacy DOT turnover

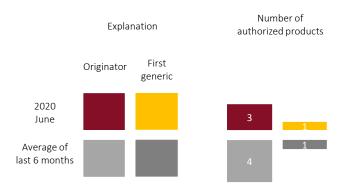
Dynamics of the sales/circulation of prescription-only-medicine



Pharmacy reimbursement turnover



Changes to subsidized medicinal product categories, June 2020



Applications for reimbursement

Number of reimbursed products



Source: Healthware analysis based on NHIFA data

Healthware Consulting Ltd.

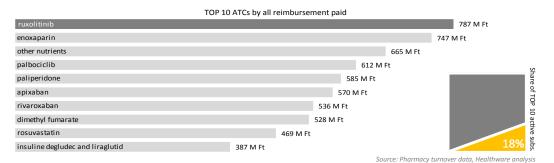
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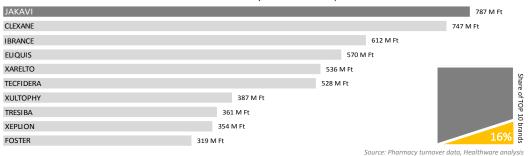
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Market data

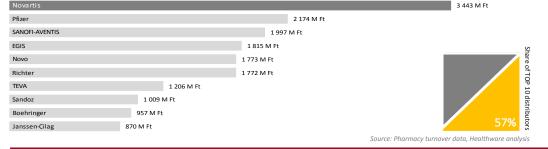
Toplists of reimbursement and number of patients, June 2020



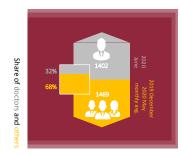
TOP 10 brands by all reimbursement paid



TOP 10 distributors by all reimbursement paid

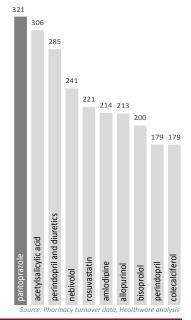


Average number of medical sales reps



Source: NHIFA data, Healthware analysis

TOP 10 active substances by number of patients (thousand patients)



Impacts of COVID-19 on the reimbursed pharmacy market II. —Case study

Healthware analyses based on NHIF data

reimbursed pharmacy market. Based on the analyzed data, the reimbursed drug turnover reacted immediately to the appearance of COVID. Compared to the year before, this peak was 36%, while to the pre-COVID 6 months average (201909-202002), the March reimbursement turnover was 28% higher, followed by a gradual compensation in the April-June period.

In our current case study, we go deeper into our topic. Analyzing the turnovers of each therapeutic area and brands, we would like to discover the reasons and the driving forces behind this unusual growth in March.

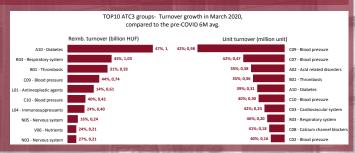
In the course of our analysis, we came to the following conclusions:

- Turnover peaks were observable in therapies concerning a large patient population with typically higher adherence (diabetes, thrombosis, blood pressure, cholesterin).
- ♦ Dermatological, musculoskeletal system related therapies and anti-infectives declined in March due to the COVID impact. The frequency of the related diseases may have fillings could also be typical in this period.

First, we focused on the reimbursement changes of the ATC3 groups. Examining the absolute growths in March, the biggest peak is observable at the A10 group, in the case of the diabetes

pressure therapies (R03, B01, C09, C10) had also an over 30% increase in March.

- ♦ The peak of turnover growth was in the first month of COVID in Hungary (in March), while the decline of turnovers culminated in April.
- ♦ The volume increase is not accompanied by a significant growth of patient numbers, however, the box/patient ratio started to increase in March (accumulation).
- ♦ Therapies that could expand in patient numbers include vitamins, analgesics, antipyretics — therapies where almost the entire population may appear as demand
- Therapy switches, appearance, and penetration of new brands were not typical in this period, due to the limited number of patient-doctor meetings and cessation of sales
- on a growing trajectory were the ones with an outstanding turnover peak in March.
- The reimb. turnover growth showed a higher deviation nationwide than the co-pay
- Difference between the co-pay and reimb. turnover growth (%) was highest in Budapest, Vas, Baranya, and Hajdú-Bihar counties, which suggest that the willingness to pay for medicines was higher in these counties than in the other part of the country.



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Of course, the therapeutic areas collecting drugs with higher reimbursement percentages are favored in this approach, so if we would like to focus on the volume increment, it is worth checking this TOP list based on sold boxes. In the right part of the figure above we see the TOP10 ATC3 groups, based on their March volume increase - in unit (compared to the pre-COVID 6M avg.). The picture is very similar to the one based on reimbursement outflow. However, the cardiovascular therapies (with 'C' ATC codes) have greater significance in this perspective. Diabetes, thrombosis, and respiratory therapies are present in this list also, so there is indeed a difference only in the case of therapies with higher reimbursement categories (L04, L01, N03).

These areas with a significant peak in March 2020 are therapies that are present in the life of masses and that have a patient population with typically higher adherence — not only in the pandemic but also in a normal situation. R03 group is an exception, having typically lower adherence. However, these respiratory diseases can be the ones where the patients concerned may feel threatened by the pandemic, which could temporarily raise their adherence.

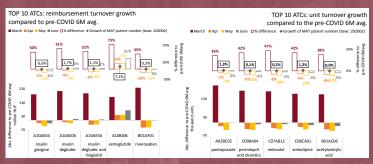
DECLINING THERAPY GROUPS

There are also therapy groups with a declining volume in March; 14 ATC3 groups we found in terms of reimbursement turnover that decreased compared to their pre-COVID turnover, and 23 based on unit turnover. The concerned therapies were mainly dermatological, musculo-skeletal system related therapies and anti-infectives. The main part of the epidemic control is the social distancing – staying home, avoiding social events and crowds –, which reduces and slows the spread of the diseases in these areas, too, not only the spread of the epidemic. On the other hand, the treatments in these therapeutic areas are not necessarily urgent. The difficulty of getting a prescription or a doctor's appointment could delay the needs of the patients of these areas; treatments may have been postponed, or skipped.

Surprisingly, the rate of decline in volume — despite the peaks — intensified in the second month of the pandemic (we did not concern the groups with just a few box turnover). All of these therapy groups reached their low point in April, and typically could not even climb back to their pre-COVID volume as the epidemic eased. Till June, only the J02 (Antimycotics) and D04 (Antipruritics) groups could reach the reimbursement level of the pre-COVID average. Regarding the unit turnover, only the D06 (Antibiotics and chemotherapeutics for derm. use) and D04 (Antipruritics) group could cling back to their 'normal' volume. The other groups — with a fall in March — had a gradually decreasing deficit compared to the 6M avg, but till now, they could not reach the pre-COVID level.

REASONS BEHIND THE GROWTH

Behind the turnover increase of an active substance, usually, we can find three main reasons; a growing number of patients, switch from another therapy or the appearance of new – more effective, more available— brands. In our case, it seems like the reason is none of the above. The doctor-patient meetings were limited in the emergency situation, so the majority of the therapeutic switches were postponed, and also, a significant change in market composition was not observable. More surprisingly, the higher volume in March was also not accompanied by a jump in patient numbers.



In the figure above, the change (%) between the March and February MAT (201904 – 202003 / 201903 – 202002) patient number is shown, for the most growing active substances. Among the ATCs shown in the figure, only in the case of semaglutide (A10BJ06) we see a 7.1% increase of MAT patient number (since it was introduced only in April 2019, so it is an ascending phase in its life-cycle). In the other cases, the difference to the month before is marginal. Consequently, we can not assume, that these – in volume highly increasing – therapies could gain (back) new or long ago dropped-out patients.

It is more likely that patients already on therapy filled more prescriptions than usual, or less adherence -but in the March MAT period already appearing- patients have returned to the examined therapies - partly due to the COVID situation and partly independently of it.

Just a few therapeutic areas could reach an increase in patient numbers in March, assumably due to the COVID situation. Among them, we find vitamins, analgesics, antipyretics, and paracetamol. Typically therapies, for which the entire population could have demand, not just those suffering from specific diseases. Moreover, these therapies are available also in the OTC segment, so we can conclude that this pattern is presumably present to an even greater extent in the not reimbursed pharmacy market.

BOX/PATIENT RATIO

The change in box/patient ratio can also support the accumulation theory. The TOP growing ATCs' box/patient ratio (Figure on the right) shows a 17-28% increase in March. After the March peak, we can see the compensation period again, in the April-June period there is a minimal difference between the actual and the 6M avg. box/patient ratios. But in this case, the decay does not

Box/patient ratio for the TOP5 growing ATCs in reimb,/unit turnover (compared to pre-COVID 6M avg.)

March Mapr May Mune

20%

22%

4%

3%

0.26 0.05 0.04

TOP5 ATC - reimb. turnover

TOP5 ATC - reimb. turnover

6M avg. Even in the compensation period, the unit per patient number is slightly above the pre-COVID average, which suggests that a part of the filled preparations left unused, in fact, the accumulation might have continued in this period also – of course far below the extent of March.

TOP BRANDS

It comes as no surprise if we look at the TOP growing brands in March – focusing on the reimbursement volumes. The already highlighted therapeutic areas are included in this list also; 4 diabetes, 3 NOACs, brands among the TOP 10 brand generating the highest absolute increase. All of the highlighted brands had a growing trajectory in the last one year (especially the already mentioned OZEMPIC – semaglutide), however, the March peak was outstanding, above the known tendencies. There was no such case (in the top cases) where the COVID impact would have brought a turn in the trend. In all cases, the additional demand was added to an otherwise growing trend.



In terms of box sales, the MILURIT brand won the most in March compared to its pre-COVID period, exceeding the six-month average by 124 thousand boxes, an increase of 42%. A similar trend appears in several therapies acting on the cardiovascular systems (primarily the antihypertensive RILMENDIN-TEVA - 46%), gastric acid treatments, and one vitamin D product is also indicated with a growth of 41%. (In the TOP15 another vitamin D product has been included, so the accumulation in this area is also significant). Among these products, we can only see a clear box turnover increase of MERCKFORMIN in the last year. However, the jump in March does not fit into the brand's growth trajectory in this case either - hence the new drug fillings also refer to accumulation or the replacement of postponed drug fillings. ¹

¹Note: In the case of the pantoprazole preps, their turnover was fluctuating in the pre-COVID period. Hence, the extent of their peak in March is somewhat biased because of the volatility of the base period.

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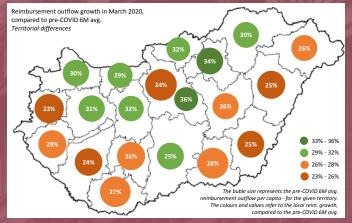
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terms of reimbursement; only Fejér, Komárom-Esztergom, and Pest counties per- cal, musculoskeletal system related therapies and anti-infe med a similar peak as in terms of reimb. outflow. In these counties, the balance tilted Thus, these therapies seem to be the most delayable ones. towards products with higher reimbursement categories during the accumulation

The percentage of reimb. and co-pay growth differs the most in Budapest and Vas counties (24%/34% in Budapest and 23%/33% in Vas – In Baranya and Hajdu-Bihar the differe is quite similar). In these counties, we can assume that the increase of willingness to pay for medicines was high.



The extent of the accumulation in March varies throughout our country. In terms of Based on the reimbursed pharmacy turnover data, the "winning" therapeutic areas of the COVID reimbursement turnover, the March peak was the lowest in Vas county and highest in period can be well defined. Those therapies which concern the majority of the population, and Pest county. Surprisingly, Budapest's reimbursement growth rate (the base is again the accompanied typically by higher adherence, were outstanding – both in terms of reimbursement of patient numbers. In this latter perspective, those areas could stand out which are general treat-Analyzing the co-payment peaks, almost all of our counties had a higher percentage than ment for diseases concerning the entire population. Most decreasing therapies were dermatological, musculoskeletal system related therapies and anti-infectives – the peak of their fall was in April.

> In quantitative terms, March 2020 brought spectacular and unusual developments in the pharma market. However, the measures taken by the government and the behavioral patterns seem to preserve the pre-COVID market structure and existing trends. The - voluntary or organized - limitations are the pre-COVID market structure and existing trends. tion of doctor-patient meetings, the cessation of sales representatives' activity encourages the market to stay with the already proven therapies. Hence, the pre-COVID well-performing brands

> Analyzing the territorial differences, it is surprising that Budapest – in contrast to the region – has payment volume, its growth rate is 10% higher, among the highest in the country. 3-4 counties we Vas, Baranya, Hajdú-Bihar), in these counties, people seems to be able/willing to pay more for

> Although our analyses focuses only on the reimbursed pharmacy turnovers, these data suggests that the drastic turnover growth of March – whether it was followed by real usage or not – was due to of telemedicine, anticipation of sparse doctor-patient meetings) and partly due to the individual preparation for the epidemic

> The question may arise, whether the second wave of the pandemic will bring similar tendencies in the pharmacy market, or when facing again the epidemic, we will learn from the previous experiences and avoid the unreasonable accumulation. In the following months we will find all the answers.

