

Baltic Statistics on Medicines 2016–2018

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Preface



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This book is the 3rd edition on the consumption of medicines in three Baltic States over a three-year period. This consumption analysis enables evaluation of habits of medicines use, also changes and trends in this particular region. The first edition of „Baltic Statistics on Medicines 2010-2012“ was published in 2013 by Estonia. The second edition of „Baltic Statistics on Medicines 2013-2015“ was published in 2016 by Latvia. In 2019 Lithuania took responsibility to publish the third edition that includes statistical data from 2016 to 2018.

It is worth to mention, that all three Baltic countries regularly assemble national statistics on consumption of medicines. Medicines in this publication are classified in accordance with the Anatomic Therapeutic Chemical (ATC) classification system and consumption is expressed as defined daily doses per 1000 inhabitants per day (DDD). It is a recommendation from World Health Organisation.

All three countries had very similar development during last three decades, after these countries became independent. Countries have built very stable health care systems. All Baltic States have joined the European Union (EU). Lithuanian, Latvian and Estonian medicines agencies have been operating in compliance with EU and national legal acts, have been participating in various joint-actions and collaborations not even at the EU level, but also worldwide.

Consumption data of Lithuania, Latvia, and Estonia were analysed in various aspects. What is new in this edition – that there were included conclusions and remarks of experts, doctors on consumption changes in concrete ATC groups during 2010 -2018 period in connection with reimbursement changes and changes in treatment guidelines. You can find remarks of experts on consumption changes of drugs used in diabetes (ATC group A10), antibacterials for systemic use (J01), anti-inflammatory and antirheumatic products (M01), psycholeptics (N05) and drugs for obstructive airway diseases (R03).

The book also contains a short description of the pharmaceutical market, regulatory requirements, medicinal product reimbursement systems in all three countries. In this book we can find many similarities and also several important differences in consumption of medicines in the countries. Data show that in all countries we can see the increase of consumption of medicines.

All three Baltic countries were also compared by other aspects: statistics of various licences, wholesalers, financial aspect (turnovers) and many other aspects, which you will find while reading this book.

In order to ensure that the results are comparable and representative, specialists from the medicines agencies in Lithuania, Latvia, and Estonia were in a very close collaboration with each other.

1. Facts about the Baltic countries

	Estonia	Latvia	Lithuania
Population (01.01.2019)	1 323 824	1 920 100	2 790 322
Total health expenditure (2017, euro)	1 003 mln	3 009 mln	2 385 mln
Total health expenditure per capita (2017, euro)	1 006	1 543	837
GDP per capita (2017, euro)	19 450	15 263	14 900
Total health expenditure as a % of GDP (2017)	6.5%	6.3%	5.7%
Medicinal products turnover (2018, wholesale, VAT excluded, euro)	325 mln	365 mln	635 mln
Number of general pharmacies per 100 000 inhabitants (01.01.2019)	37	41	47
Number of physicians per 100 000 inhabitants (01.01.2019)	345	337	492
Total number of reimbursed prescriptions (2018)	8.6 mln	6.8 mln	10.3 mln

2. Medicinal products regulation and pharmaceutical services in the Baltic countries

2.1 Procedures of marketing authorisation of medicinal products in Baltic States

The procedure of the marketing authorisation of the medicinal products in the Baltic States is following the European Union law as well as the EU and international guidelines. The procedures are similar in all EU member states. An application for a marketing authorisation for a medicinal product may be filled under the mutual recognition, decentralised, centralised or national procedure.

The **National Procedure** may be used when an application for the marketing authorisation of a product is filled for the first time in the European Union. This procedure may also be applied to the 'extensions of marketing authorisations', wherein an application is filled, for example, for a new strength or pharmaceutical form of a product already approved nationally. After the evaluation of the application the product may be granted a marketing authorisation nationally.

The **Mutual Recognition Procedure (MRP)** makes use of a marketing authorisation already granted for the medicinal product by an EU Member State (or by Norway, Iceland or Liechtenstein). The Member State whose evaluation statement (assessment report) is used as grounds for recognising the marketing authorisation is known as the Reference Member State (RMS), while the member state recognising the authorisation is known as the Concerned Member State (CMS).

The **Decentralised Procedure (DCP)** may be applied for products that do not have a marketing authorisation in any Member State. This procedure will allow concomitant application for authorisations in both the RMS and the CMS. The process is conducted by the RMS while the CMSs participate in the evaluation of the application prior to the granting of the marketing authorisation in any of the Member States taking part in the process.

In the event that a marketing authorisation is recognised, the product will be granted a national marketing authorisation as soon as the national translations of its summary of product characteristics (SmPC), package information leaflet (PIL) and labelling confirming the product information mutually agreed in the Mutual Recognition or Decentralised Procedure are ready and approved.

The **Centralised Procedure** is used when a marketing authorisation is applied within the entire EU area for the new biotechnological and other innovative medicinal products. Such marketing authorisation applications are filled with the European Medicines Agency (EMA). Applications for the marketing authorisation concerning the medicinal products for human use are evaluated by the Committee for Medicinal Products for Human Use (CHMP) and those for veterinary use by the Committee for Medicinal Products for Veterinary Use (CVMP). Each Member State has nominated one regular member and one alternate member to each of

these committees. Furthermore, five auxiliary members have been elected to each committee based on their scientific competence.

For each application the Committees will elect a rapporteur and a co-rapporteur from among their members to carry out the evaluation of the application with the aid of the resources made available by the medicines agencies of the Member States. Based on the reviews obtained, the committees will issue a scientific statement to be submitted to the EU Commission for the actual decision-making process. The marketing authorisation granted by the Commission is valid in every Member State as well as in the European Economic Area (EEA) countries Iceland, Liechtenstein and Norway.

2.2 Marketing authorisation licences

Table 1. Marketing authorisations in January 2019

	Estonia	Latvia	Lithuania	Centrally Authorised Products (CAP) in EU
Number of trade names	2569	2643	2680	1085
Number of INN	837	1306	879	696
Number of products	3746	4423	4501	2731

INN - International Non-proprietary Name

2.3 Non-authorised medicinal products

As a general rule, the medicines used in all three Baltic States must have a valid marketing authorisation. Considering the relatively small size of the pharmaceutical market in all three countries, non-authorised medicines may be used exceptionally if there is no suitable authorised medicine in the register or if the authorised medicine is not available.

■ ESTONIA

The use of the non-authorised medicines is permitted on the basis of applications from doctors (for ambulatory use per patient or for in-hospital use per medical institution for a maximum of 1 year) or from professional organisations (for a cohort of patients). The Agency assesses whether there are grounds for using a particular medicine and in justified cases may issue a permission for the use of a non-authorised medicine.

■ LATVIA

In exceptional cases the State Agency of Medicines issues a permit to wholesalers for the distribution of the medicines authorised in other countries. The medicines wholesaler bases its request for the distribution of the non-authorised medicines on a request from a pharmacy or from a healthcare institution.

■ LITHUANIA

To ensure the availability of all the necessary medicines for the patients the use of the non-authorised medicines is permitted under exceptional circumstances. The non-authorised medicines may be used in the ambulatory care and at the hospital on the basis of a special application from a doctor with signed informed consent of the patient. The treating physician is responsible for prescribing, information and safe use of the non-authorised medicines.

2.4 Medicinal products mark-up

All Baltic States regulate the maximum value that wholesalers and pharmacies are allowed to add to their purchasing price (PP).

■ ESTONIA

The level of maximum limits is required by law to allow the weighted average mark-up of 7-10% in wholesale and 21-25% in retail sale of pharmaceuticals and should be adjusted accordingly based on an annual market analysis by the Ministry of Social Affairs. In practice the applied mark-up may be lower than this maximum, which is frequent for the over-the-counter (OTC) pharmaceuticals. This is one of the commercial possibilities for the wholesalers and pharmacies to attract clients.

Table 2. Wholesale mark-up scheme in Estonia

Ex-factory price in €	Maximum mark-up (% of ex-factory price)
up to 1.60	20
1.61–2.88	15
2.89–6.39	10
6.40–12.78	5
over 12.78	3

Table 3. Pharmacy mark-up scheme in Estonia

Pharmacy purchasing price in €	Pharmacy mark-up coefficient (%)	Fixed pharmacy mark-up in €
up to 0.64	-	0.38
0.65–1.28	40	0.38
1.29–1.92	35	-
1.93–2.56	30	-
2.57–3.20	25	-
3.21–6.39	20	-
6.40–44.74	15	-
over 44.74	-	5.11

A value-added tax (VAT) of 9% is applied for all pharmaceuticals and nutritional mixtures used for medicinal purposes. A standard value-added tax (VAT) of 20% is applied for other goods in Estonia.

■ LATVIA

The principles for the determination of the price of the medicinal products are described in the legislation.

The maximum wholesale mark-up is determined by the following formula:

Maximum wholesaler's price = manufacturer's price x correction factor + correction sum in currency + VAT. The correction factor and correction sum shall be determined on the basis of the manufacturer's price (see Table 4).

Table 4. Wholesale mark-up scheme in Latvia

Manufacturer's price in €	Correction factor	Correction sum in €
up to 4.26	1.18	-
4.27-14.22	1.15	0.13
14.23 and more	1.10	0.84

The maximum retail mark-up is determined by the following formula:

Maximum pharmacy price = procurement price x correction factor + correction sum in currency + VAT. The correction factor and correction sum shall be determined on the basis of the procurement price (see Table 5).

Table 5. Pharmacy mark-up scheme in Latvia

Procurement price €	Correction factor	Correction sum €
up to 1.41	1.40	-
1.42–2.84	1.35	0.07
2.85–4.26	1.30	0.21
4.27–7.10	1.25	0.43
7.11–14.22	1.20	0.78
14.23–28.45	1.15	1.49
28.46 and more	1.10	2.92

The manufacturer's prices are declared to the State Agency of Medicines by the manufacturers twice a year and every time the prices are changed or a new product is placed on the market. The maximum retail prices are then calculated and published on the Agency's website for consumers and other interested parties.

The standard rate of value added tax (VAT) in Latvia is 21%. The reduced rate of 12% is applied to the medicinal products. The VAT for medicines in Latvia was increased twofold from 5% to 10% in 2010 and then to 12% in 2011.

■ LITHUANIA

Wholesalers and pharmacy maximum mark-ups of pharmaceuticals is regulated by law and a combination of fixed and regressive schemes is used. Since 2018 fixed mark – ups for reimbursed pharmaceuticals is used. In practice for non – reimbursed pharmaceuticals the applied mark-up may be lower than this maximum. This is one of the commercial possibilities for the wholesalers and pharmacies to attract clients.

In Lithuania standard rate of VAT consists of 21%.The VAT for reimbursed and non - reimbursed pharmaceuticals with prescription is 5 % and 21% for not reimbursed over-the-counter pharmaceuticals.

Table 6. Wholesale mark-up scheme in Lithuania for non – reimbursed pharmaceuticals

Ex-Factory Price in €	Maximum wholesale mark-up in %	Maximum wholesale mark-up in €
up to 1.86	18%	-
1.87 – 2.89	16%	-
2.90 – 5.63	9%	-
5.64 – 7.24	8%	-
7.25 – 15.51	7%	-
15.52 – 19.74	6%	-
19.75 – 263.29	5%	-
263.30 and more	-	14.48

Table 7. Wholesale mark-up scheme in Lithuania for reimbursed pharmaceuticals

Ex-Factory Price in €	Wholesale mark-up in €
up to 49,99	0,51
50 – 263,29	2,45
263.30 and more	5,79

Table 8. Pharmacy mark-up scheme in Lithuania for non – reimbursed pharmaceuticals

Pharmacy purchase price (PPP) in €	Maximum pharmacy mark-up in %	Maximum pharmacy mark-up in €
up to 2.37	30%	-
2.38 – 2.89	25%	-
2.90 – 4.42	23%	-
4.43 – 7.24	22%	-
7.25 – 7.90	19%	-
7.91 – 21.72	17%	-
21.73 – 144.81	15%	-
144.82 and more	-	17.38

Table 9. Pharmacy mark-up scheme in Lithuania for reimbursed pharmaceuticals

Pharmacy purchase price (PPP) in €	Maximum pharmacy mark-up in %
up to 47,46	1,00
47,47 – 144,80	5,10
144.81 and more	14,48

2.5 Generics market

■ ESTONIA

Although there is no explicit regulation on the (mandatory) use of generics in Estonia (i.e. generic substitution), there are some regulative measures in place, directing doctors and patients towards the wider use of generics where these are available.

Doctors have to prescribe pharmaceuticals by their International Non-proprietary Name (INN) as the default option; if prescribing by the trade name, they have to document this in the medical record of the patient providing the justification and to mark “not to substitute” on the prescription.

If the pharmaceutical has been prescribed by the INN, the pharmacist has to offer different preparations to the patient, including the cheapest alternative for the patient. In discussion with the patient the most appropriate preparation is to be chosen.

The prevailing reference price system, establishing the reference price of a pharmaceutical as the basis for the reimbursed amount, is a strong incentive to accept substitution, as patients would have to pay the price difference between the reference price and the reimbursed amount on top of their statutory out-of-pocket payments.

■ LATVIA

According to the Latvian legislation a physician may prescribe the medicinal product by the trade name and the pharmacist is allowed to substitute it with an analogue if the doctor has not forbidden this possibility on the prescription.

However, in case of the first prescription of a reimbursed medicinal product the INN name of the medicinal product should be indicated on the prescription and the pharmacist has to offer different preparations to the patient, including the cheapest alternative for the patient.

■ LITHUANIA

Several measures have been introduced in order to stimulate the use of generic medicines.

According to the Lithuanian legislation the medicines should be prescribed by the INN. The prescribing by the trade name is only allowed for the biological pharmaceuticals. Some medicines with narrow therapeutic window may be prescribed by the trade name after the decision of the specialists' commission. All pharmacies are obliged to provide data on prices to the patients on the screen and are obliged to have the cheapest product in the store.

2.6 Retail and hospital pharmacies and wholesalers

Table 10. Pharmacies and wholesalers in the Baltic States as of 1st Jan 2019

	Estonia	Latvia	Lithuania
Retail pharmacies	494 (including 144 structural units)	871+ (including 80 structural units)	1317
Hospital pharmacies	24 (including 1 structural units)	31 (no structural units)	44
Human medicines wholesalers (incl. human and veterinary medicines distribution)	64	84	166
Veterinary medicines wholesalers (only veterinary medicines)	3	26	41

Structural unit is a separate pharmacy acting under the same activity licence as the main pharmacy.

■ ESTONIA

In January 2019 there were 64 medicines wholesalers in Estonia and 3 of them were specialised only in veterinary medicines. 18 wholesalers had both, human and veterinary products wholesale licences.

In 2018, 29 wholesalers sold human medicines to general or hospital pharmacies or to other institutions. Three major wholesalers covered 77% of human medicinal products market: Magnum Medical (28%), Tamro Estonia (27%) and Apteekide Koostöö Hulgimüük (21%). Followed by Roche Estonia (5%), Baltfarma (5%) and Estonian Health Board (5%). The total market share of the other wholesalers remained under 10%.

Table 11. Wholesalers of the medicinal products in Estonia

	2015	2016	2017	2018	2019
Wholesalers (human and veterinary medicines)	51	54	58	62	61
Wholesalers (only veterinary medicines)	6	6	6	5	3
Together	57	60	64	67	64

At the beginning of 2019 there were 494 general pharmacies (including 163 structural units), 24 hospital pharmacies (including 1 structural unit) and 4 veterinary pharmacies in Estonia.

Table 12. Pharmacies in Estonia

	2015	2016	2017	2018	2019
Retail pharmacies	476	493	490	495	494
Hospital pharmacies	24	24	24	24	24
Veterinary pharmacies	4	4	4	4	4

■ LATVIA

In January 2019 there were 84 authorised human medicines wholesalers in Latvia. 10 of them had wholesale licences with special activity type that allows to distribute veterinary medicines as well.

Since January 1st 2011 the licences for the distribution of veterinary medicines are being issued by the Food and Veterinary Service. Before that from 2008 till 2011 veterinary medicines wholesalers were licenced by the State Agency of Medicines.

In 2018, 50 wholesalers of human medicines distributed medicines to the pharmacies, health care institutions, medical practitioners and other recipients. Over 94% of medicinal products market was covered by the eight major wholesalers: Recipe Plus (33%), Tamro (18%), Magnum Medical (18%), Euroaptieka (13%), Olainfarm (5%), Oribalt Rīga (previously Oriola Rīga) (3%), Vita-Farm (Baltfarma) (2%) and Unifarma (2%).

Table 13. Wholesalers of the medicinal products in Latvia

	2014	2015	2016	2017	2018
Human medicines wholesalers (incl. human and veterinary medicines distribution)	65 (6)	63 (6)	74 (4)	85 (7)	84 (10)
Veterinary medicines wholesalers (only veterinary medicines)	23	23	24	30	28
Total	88	86	98	115	112

In the beginning of 2019 there were 840 retail pharmacies (including 80 structural units) and 31 hospital pharmacies in Latvia. 55% of all retail pharmacies are located in the 9 largest cities of Latvia - 34% in Riga, 5% in Daugavpils, 4% in Liepāja, 3% in each Jelgava and Jūrmala, 2% in each Rēzekne and Ventspils and 1% in each Jekabpils and Valmiera.

Table 14. Pharmacies in Latvia

	2014	2015	2016	2017	2018
Retail pharmacies (including structural units)	874 (95)	867 (95)	871 (95)	842 (81)	840 (80)
Hospital pharmacies	34	33	33	32	31
Veterinary pharmacies	92	97	122	138	138

■ LITHUANIA

In 2018, 40 out of 125 wholesalers sold medicines to the general or hospital pharmacies or to other institutions. The following 6 wholesalers cover 94% of the medicinal product market: UAB "EVD" (32%), UAB „LIMEDIKA“ (26%), UAB „Nemuno vaistinė“ (20%), UAB „Tamro“ (8%), UAB „ARMILA“ (5%) and UAB „Medikona“ (3%). The market share of the other wholesalers made up 6% of the total market.

Table 15. Wholesalers of the medicinal products in Lithuania

	2015	2016	2017	2018	2019
Human medicines wholesalers (incl. suspended licences)	123	126	117	124	125
Veterinary medicines wholesalers (only veterinary medicines)	40	45	42	42	41
Total	163	171	159	166	166

Hospital pharmacies are funded by the hospitals and do not dispense medicines to outpatients. Not every hospital has a hospital pharmacy for inpatients; however the majority of health care providers have ordinary community pharmacies on the premises.

Table 16. Pharmacies in Lithuania

	2015	2016	2017	2018	2019
Retail pharmacies	1380	1387	1311	1299	1317
Hospital pharmacies	47	47	44	44	44
Veterinary pharmacies	158	167	311	321	332

3. Drug reimbursement systems in the Baltic countries

3.1 Description of the reimbursement systems

The structure of the reimbursement systems has similarities in Baltic states:

- Medicinal products are compensated for on the basis of the diagnosis.
- Reimbursement rates are divided according to the severity of the disease. There are Positive Lists of the products.
- For certain patient groups additional discounts are provided, for example children and the elderly.
- Medicinal products are compensated for according to the reference prices in case it exists.

Details of the systems are described below.

■ ESTONIA

The Estonian health insurance relies on the principle of solidarity. The Estonian Health Insurance Fund (EHIF) covers the costs of health services required by a person in case of an illness regardless of the amount of the social tax paid for the person concerned. The Fund uses the social tax paid for the working population also for covering the cost of the health services provided to the persons who have no income with regard to work activities. The employers are required by law to pay social tax for all persons employed, the rate of this tax is 33% of the taxable amount, 20% of which is allocated for the pension insurance and 13% for the health insurance.

The purpose of the health insurance in Estonia is to cover the costs of the health services provided to the insured persons to prevent and cure diseases, finance the purchase of the medicinal products and medical devices, and provide the benefits for the temporary incapacity for work and other benefits.

Only the medicinal products included in the EHIF's list of medicinal products and authorised in Estonia are compensated for. Special reimbursement mechanism is available for the products not having a marketing authorisation in Estonia. Medicinal products are compensated for according to the reference prices and price agreements in case these exist; in other cases the refund is based on the product's retail price. At the manufacturing level there is statutory pricing (after the negotiations) for reimbursable pharmaceuticals. The process of pricing is incorporated into the procedure of reimbursement decision making. Medicinal products are compensated for on the basis of the diagnosis. Medicinal products intended for hospital use are compensated to health care providers if their cost is included in service fee.

Reimbursement rates for medicinal products for out-patient use:

100% reimbursement – Pharmaceuticals for the treatment of choice of serious, life-threatening or epidemic diseases.

Patient shall make an own contribution of 2.5 EUR and in case there is a reference price or a price agreement, pay the sum that exceeds that price. Health Insurance Fund will cover 100% of the sum that exceeds 2.5 EUR and is within the reference price or price agreement.

75% reimbursement - Pharmaceuticals for the treatment of choice of chronic diseases, threatening the quality of life.

The patient makes an own contribution of 2.5 EUR per prescription, pays 25% of the sum remaining between 2.5 EUR and the reference price/price agreement and everything exceeding the reference price/price agreement. The Health Insurance Fund shall pay 75% of the amount between 2.5 EUR and the reference price/price agreement.

50% reimbursement - all other pharmaceuticals in the Positive List.

The patient shall make an own contribution of 2.5 EUR, pay 50% of the sum between 2.5 EUR and the reference price/price agreement and everything exceeding the reference price/price agreement. The Health Insurance Fund shall pay 50% of the amount exceeding 2.5 EUR.

A compensation rate of 90% applies to medicinal products with a discount rate of 75% in case of the following patient groups:

- children aged 4 to 16 years;
- insured persons over 63 years of age, in addition, all persons who have been granted pension under the State Pension Insurance Act.

For children under 4 years old, compensation rate of 100% is applied on all medicinal products included in the EHIF list of medicinal products.

■ LATVIA

The general principles of the reimbursement system of pharmaceuticals are set in the legislation. The reimbursement of pharmaceuticals shall be provided according to the character and severity of the disease. The following categories are applied:

100% reimbursement - for chronic, life threatening diseases or diseases causing irreversible disability, where the use of pharmaceuticals ensures and maintains the patient's life functions,

75% reimbursement - for chronic diseases, for which the maintenance of the patient's life functions are aggravated without the use of pharmaceuticals,

50% reimbursement – for diseases where pharmaceuticals maintain or improve the patient's health and for vaccines.

All drugs for the same indication are reimbursed at the same rate. For the pharmaceuticals for which the reference price is calculated the reimbursement rate is applied to the reference price.

The pharmaceuticals eligible for the reimbursement are listed in the Positive List elaborated by the National Health Service (NHS) of Latvia.

The Positive List consists of three parts – List A, List B and List C according to the following basic principles:

- List A includes pharmaceuticals, which have several preparations of the same therapeutic effectiveness within the scope of the INN or the pharmaco-therapeutic group and medical devices of the same type;
- List B includes pharmaceuticals and medical devices, without an authorised alternative;
- List C includes pharmaceuticals, costs of which exceed 4270 € per patient per year and special medical restrictions cannot be applied to reduce the expenditure.

Reimbursable pharmaceuticals are prescribed by family doctors and certain specialists who have an agreement with the NHS of Latvia.

Reimbursement is provided through pharmacies on the basis of a special reimbursable prescription, patients have to pay the co-payment in the case of the 75% or 50% reimbursement levels, or € 0.71 at the 100% reimbursement level. When more expensive, not the reference (cheapest) product is prescribed, patient pays also the difference between the reimbursement sum and the price of the product.

A pharmaceutical to be included in the Positive List is to:

- be authorised by the national medicines agency or by the European Commission, or parallel imported according to the regulations;
- be classified as a “prescription only” (over-the-counter (OTC) products are not reimbursable);
- have an approved indication relevant to the diseases listed in Appendix of the Regulation of Cabinet of Ministers.

In Latvia, there is statutory pricing (after the negotiations) for reimbursable pharmaceuticals and free pricing for non-reimbursable pharmaceuticals at the manufacturer level. The process of pricing is incorporated into the procedure of the reimbursement decision making. During the price negotiations both external and internal price referencing mechanisms are used.

The main therapeutic criteria for a pharmaceutical to be reimbursed are:

- therapeutic value of a pharmaceutical based on the evidence level from published clinical trials;

- relevance to the treatment schemes and international guidelines for the treatment of the disease;
- place in the treatment scheme of the disease (e.g. first/second-line treatment, specific patient group);
- relevance of the dosage, pharmaceutical form and pack size to the treatment course.

The main economic criteria for a pharmaceutical to be reimbursed are:

- justified price, based on comparison with other available treatments and prices in reference countries;
- cost-effectiveness data; relevance of pharmaceutical expenditure with expected therapeutic effectiveness;
- budget impact.

Prescription-only medicines that are not included in the Positive List, are reimbursed for children up to 24 months of age (reimbursement rate 50%) and for pregnant women and women within 42 days of postnatal period (reimbursement rate 25%) (List M).

■ LITHUANIA

The state health care system is intended to serve the entire population, and the Health Insurance Law requires all permanent residents to participate in the compulsory health insurance scheme without an option to opt-out. Compulsory health insurance covers almost all inhabitants. Compulsory health insurance provides a standard benefits package for all beneficiaries. There is no positive list of health services provided in the state-financed health care facilities. Emergency care is rendered free of charge to all permanent residents irrespective of their insurance status. Drugs prescribed by a physician are reimbursed according to the reimbursement lists. Expensive hospital medicines are centrally purchased by the National Health Insurance Fund.

There are two reimbursement lists, A and B.

List A covers pharmaceuticals for specific diseases in three reimbursement categories:

100% reimbursement: Covers the most serious and expensive diseases, including oncology, diabetes, haemophilia, schizophrenia, asthma etc.

At 90% and 50% reimbursement level are reimbursed only a few diseases.

Reimbursement from the disease-based list A accounts to approximately 95% of the country's total pharmaceutical reimbursement.

List B is a list of 56 active substances or combinations reimbursed for certain social groups, including children under 18 years old, the disabled and pensioners with two reimbursement rates:

- 100% is granted to children and the severely disabled,
- 50% is given for other disabled patients and pensioners.

3.2 Changes in the reimbursement systems (during the period of 2016–2018)

■ ESTONIA

The decision making of active substances to be added to the positive list was moved from the Ministry of Social Affairs to the Health Insurance Fund in the beginning of 2018. The procedure itself remained practically unchanged. There were no major changes in the reimbursement system during this period in Estonia. New active substances are still added to the list of reimbursed medicines quarterly. The prescription fee was unified for all the reimbursement categories. Before it was 1.27€ for 100% and 75% reimbursed medicines and 3.19€ for 50% reimbursed medicines, now it is 2.5€ for all reimbursement classes.

■ LATVIA

Since August of 2018 the Positive list is updated monthly.

Until 1st September 2018 the prices of the interchangeable medicines whose price was more than 100% higher than the price of the cheapest medicine within INN had to be reduced to 100% price difference threshold or by 20%.

■ LITHUANIA

From 2015 to 2018 the expenditure on pharmaceuticals and medical devices covered by the NHIF has increased from 213 to 248 million Euros (average annual growth 4,1 %). The patients co-payments decreased during this period from 54 to 40 millions Euros.

Seeking to reduce the level of out of pocket payment and improve the accessibility and affordability of medicines, the Minister of Health has approved the Pharmaceutical Policy Guidelines in August of 2017. The main goals of Pharmaceutical Policy Guidelines are:

1. to improve an access to innovative medicines having high therapeutic value for people suffering from severe diseases;

2. to implement the measures promoting rational use of medicines;
3. to introduce the measures to lower pharmaceutical prices.

Implemented measures:

- The uniform 5% VAT rate for all prescribed medicines has been established since 1st January 2018 (previously 5% VAT tariff was applicable for reimbursed pharmaceuticals and 21% VAT tariff for non-reimbursable medicines). The reduced VAT rate resulted in decreased patient's expenditure on medicines. During the 1st quarter of 2018 patients expenditure for the prescribed non-reimbursable medicines decline by 3.2 million EUR.
- The pricing methodology of subsidized medicines has been changed as well in 2018. Tightened conditions for the inclusion of medicines into the positive list played the significant role on the decline of the co-payments since encouraged manufacturers and suppliers to offer cheaper medicines.
- More medicines started to be compensated by 90 or 100 percent. The reimbursement level of medicines previously compensated by 80 %, was increased to 100 % (except pharmaceuticals for cardiovascular diseases) and the level of medicines for cardiovascular diseases by 90% in 2018. Regulation of patient co-payment by setting the maximum possible co-payment for package.
- The amendments of the pricelists are performed 4 times per year (instead of former one);
- During 2018 the inter-institutional working group analysed the legal framework and provided proposals concerning measures for reduction of the OOP on medicines, odontological services for low income people. The amendments of the Law on Health Insurance concerning the exemption of low incomes population from paying co-payments for subsidised medicines and medical aids is presented to the Lithuanian Parliament.

3.3 Reference price systems

■ ESTONIA

The reference price is based on the internal price referencing, where the pharmaceuticals are grouped on the basis of active ingredients (Anatomic Therapeutic Chemical classification ATC-5 level), route of administration and pharmaceutical form. Parallel traded pharmaceuticals have been incorporated into the reference price system as well.

The procedures for setting manufacturer prices differ depending on whether the pharmaceutical in questions is an innovative or a generic product.

There are specific criteria for reimbursement of the parallelly traded pharmaceuticals: the price for these has to be 10% lower than the price of the primary authorised product on the market.

Statutory pricing – in combination with price negotiations – is applied to the innovative and in-patent reimbursable pharmaceuticals in Estonia. The statutory price levels are set according to the prices of the product in the reference countries (Latvia, Lithuania, Hungary, Portugal, France and the country of origin). If applicable, and similarity is proven, the prices of pharmaceuticals of similar effect are also compared.

The Estonian Health Insurance Fund is the main authority involved in the pricing decisions, receiving advice from the Pharmaceutical Committee.

If the price of the pharmaceutical is according to the opinion of the Pharmaceutical Committee set too high, price negotiations with the manufacturer are started. Negotiations are possible for the same pharmaceuticals and on the basis of the same legal framework/procedure as statutory pricing.

■ LATVIA

The reference price system is used in Latvia. The products are grouped into clusters:

- within the INN or
- within the pharmacotherapeutic group if there are no clinically relevant differences in the effectiveness and side-effects for the same indication and drugs are intended for the same patient group.

Products are clustered according to the pharmaceutical form and dosage. Then the reference product for each cluster is identified (the cheapest pharmaceutical) and on the basis of the price of the reference product the reimbursement price for each pharmaceutical in the cluster is calculated.

■ LITHUANIA

There have been a number of changes to the reference price system in Lithuania in the recent years. The system is based on both external and internal reference pricing measures. Previously, maximum reimbursement prices, or reference prices, were set taking into account the lowest price on the Lithuanian market and ex-manufacturers' prices were negotiated taking into account prices in the neighbouring markets, including Latvia and Estonia. With effect from 2002, phased changes were introduced, to take into account the pricing of products relative to that in other EU states. In 2004, a temporary external reference pricing mechanism was based on a review of pricing in the then 15 EU member states (prior to the EU accession of Lithuania and other countries included in this report). This identified the lowest price in these states, to which 5% was added for Lithuanian pricing.

From 2005, six countries deemed to have similar per capita income to Lithuania: Latvia, Estonia, Poland, Czech Republic, Slovakia and Hungary are used to detect reference price level. Under the revised approach, the declared manufacturer price is compared with a level which is 95% of the average of that found in the reference countries. In cases where the product is not on the market in some of these countries, the average is taken from the markets in which it is present. In cases where the product is not on the market in any of the reference countries, the price of the product in the country of manufacture is used. From 2009 onwards, Romania and Bulgaria were added to the list of reference countries.

Since July 2018, only patent-protected and off-patent medicines supplied by only one producer are covered by the reference price system:

- **Patent-protected drugs:** the maximum reimbursement price (reference price) for each INN and strength is determined with a reference to the average of three lowest prices in EU.

For the purposes of determining the reference price, products are grouped by the active ingredient and strength, with separate clusters drawn up for the same route of administration and pharmaceutical form. Separate clusters are formed for products for paediatric use. Given the nature of the system, patented products are at the moment protected from the impact of internal price referencing, which in effect results in reimbursement pricing at the level of the cheapest product in the group.

For patent non protected medicinal products which are supplied by two or more suppliers only internal reference system is used. Such products are clustered by the active ingredient, with separate clusters drawn up for the same route of administration and pharmaceutical form. Different strength products are clustered in one cluster. There is introduced highest margin of patient co-payment and products which exceed the highest co-payment aren't included to the reimbursement system.

4. Materials and methods used for the Baltic Statistics on Medicines

4.1 Data collection in the Baltic States

■ ESTONIA

Estonian State Agency of Medicines (SAM) is collecting and analysing drug utilization data in Estonia.

According to the Medicinal Product Act and Decree of the Minister of Social Affairs all wholesalers of medicinal products have to report their sales data quarterly to SAM. The reports include the following data for each product: package ID, ATC code, active substance(s), trade name, pharmaceutical form, strength, package size and the manufacturer. The sales data are presented in monetary value and by unit of volume (number of packages).

From these reports only the sale to end-consumers (retail and hospital pharmacies, nursing homes etc) are used for calculating the medicines consumption.

Estonian SAM has been collecting and analysing the data since 1994. Statistics on medicines are annually published at the Agency's website (www.ravimiamet.ee).

■ LATVIA

Statistical data regarding consumption of human medicines in Latvia is collected and processed by the State Agency of Medicines (SAM). In accordance with the Pharmaceutical Law and Regulations of the Cabinet of Ministers all wholesalers of medicines are submitting their sales data (including data regarding parallel imported and parallel distributed medicines) on a monthly basis by uploading to the Agency's database. The reports include the following information: medicinal product identification code in accordance with medicinal product register; trade name; price per package; number of packages sold for the particular price and consumer group to which the product was sold.

Only the sales data of medicines sold to the final recipients (pharmacies, healthcare institutions, medical practitioners and other recipients) are used for calculating medicines consumption statistics. Latvian SAM has been collecting and analysing the data since 2001. The national report on statistics on medicines consumption is annually published on the Agency's website (www.zva.gov.lv).

■ LITHUANIA

Lithuanian State Medicines Control Agency (SMCA) is responsible for collection and analysis of drug utilization data in Lithuania.

According to the Pharmaceutical Law and Order of the Head of State Medicines Control Agency all wholesalers of medicinal products have to report their sales data monthly to SMCA. The reports include the following data: a number of wholesaler's licence, package ID of medicinal product, and the number of packages sold. The

sales data are presented in volume (number of packages).

From these reports only the sale to end-consumers are used to calculate the medicines consumption.

The Lithuanian SMCA has been collecting and analysing the data since 2009. Since 2010 statistics on medicines are annually published at the Agency's website (www.vvkt.lt.)

4.2 ATC/DDD methodology and interpretation of drug sales statistics

The Anatomical Therapeutic Chemical (ATC) classification system and the Defined Daily Dose (DDD) as a measuring unit have become the gold standard for international drug utilization research. The ATC/DDD system is developed and maintained by the WHO Collaborating Centre for Drug Statistics Methodology situated in Oslo (www.whocc.no).

The purpose of the ATC/DDD system is to serve as a tool for drug utilization research in order to improve quality of drug use. One component of this is the presentation and comparison of the drug consumption statistics at international and national levels.

In the Anatomical Therapeutic Chemical (ATC) classification system, the active substances are divided into different groups according to the organ or system on which they act and their therapeutic, pharmacological and chemical properties. Drugs are classified in groups at five different levels. The drugs are divided into fourteen main groups (1st level), with pharmacological/therapeutic subgroups (2nd level). The 3rd and 4th levels are chemical/pharmacological/therapeutic subgroups and the 5th level is the chemical substance. The 2nd, 3rd and 4th levels are often used to identify pharmacological subgroups when that is considered more appropriate than therapeutic or chemical subgroups.

The complete classification of metformin illustrates the structure of the code:

A	Alimentary tract and metabolism (1st level, anatomical main group)
A10	Drugs used in diabetes (2nd level, therapeutic subgroup)
A10B	Blood glucose lowering drugs, excl. insulins (3rd level, pharmacological subgroup)
A10BA	Biguanides (4th level, chemical subgroup)
A10BA02	metformin (5th level, chemical substance)

Thus, in the ATC system all plain metformin preparations are given the code A10BA02.

Medicinal products are classified according to the main therapeutic use of their main active ingredient, on the basic principle of assigning only one ATC code for each pharmaceutical formulation (i.e. similar ingredients, strength and pharmaceutical form). A medicinal product can be given more than one ATC code if it is available in two or more strengths or formulations with clearly different therapeutic uses.

The Defined Daily Dose (DDD) is the assumed average maintenance dose per day for a drug used for its main indication in adults.

A DDD will only be assigned for drugs that already have an ATC code. DDDs are not established for topical products (e.g. dermatologicals), sera, vaccines, antineoplastic agents, allergen extracts, general and local anaesthetics and contrast media.

It should be emphasised that the defined daily dose is a unit of measurement and does not necessarily reflect the recommended or Prescribed Daily Dose (PDD). Doses for individual patients and patient groups will often differ from the DDD and will necessarily have to be based on individual characteristics (e.g. age and weight) and pharmacokinetic considerations.

Drug consumption data presented in DDDs only give a rough estimate of consumption and not an exact picture of actual use. The DDD provide a fixed unit of measurement independent of price and dosage form (e.g. tablet strength) enabling the researcher to assess trends in drug consumption and to perform comparisons between population groups.

Drug consumption figures are usually presented as numbers of DDDs/1000 inhabitants/day. Sales data presented in DDD/1000 inhabitants/day provides a rough estimate of the proportion of the population within a defined area treated daily with certain drugs. For example, the figure 10 DDDs/1000 inhabitants/day indicates that 1% of the population on average gets a certain treatment daily.

The use of a drug expressed as DDD/1000 inhabitants/day is derived by calculating the overall amount of a drug being used over a specified period of time (e.g. a year) and dividing this by the DDD multiplied by the population and the number of days in the period.

$$\text{DDD/1000 inhabitants/day} = \frac{\text{Amount used in 1 year} * 1000}{\text{DDD} * \text{population} * 365(\text{days})}$$

Collecting and publishing drug utilization statistics are critical elements in the process of improving the prescription and dispensing of medicines. For drug utilization statistics to have the best possible impact on drug use, the statistics need to be used in a focused and active manner.

All figures presented in this publication are based on the ATC/DDD version valid from January 2016.

More detailed information can be found at www.whooc.no.

4.3 Factors affecting the interpretation of drug utilization data

Classification of the medicinal products in the Baltic States

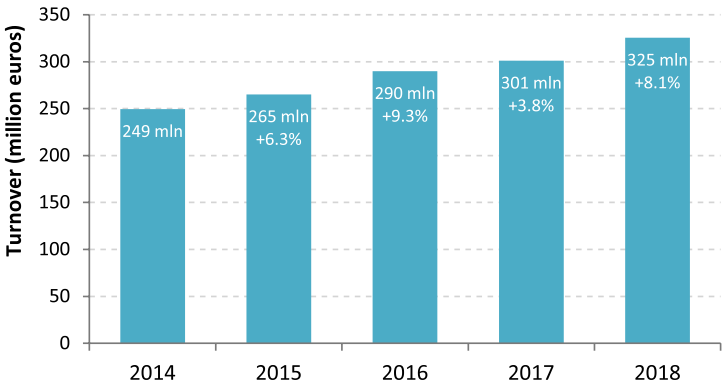
The classification of medicinal products may vary between countries. Consequently, data on drug use in different countries may not be directly comparable in all of the drug classes. For example some products may be classified as food supplements or natural remedies in one country and as a medicine in another country. For this reason the ATC groups A11 (vitamins) and A12 (mineral supplements) have been excluded from this publication.

5. Cost of drugs as a share of total health care expenditure in the Baltic countries

5.1 The medicinal products market

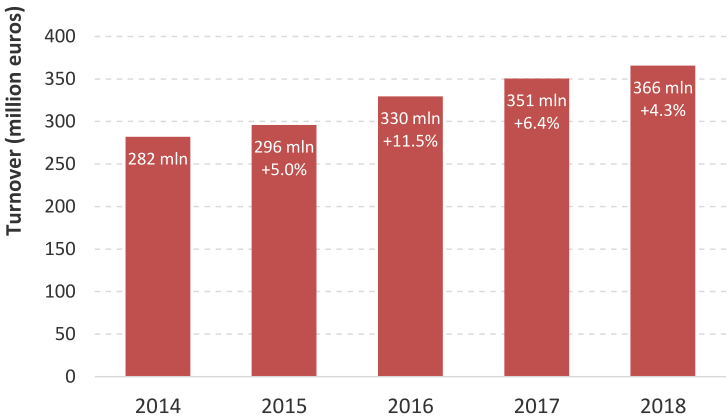
■ ESTONIA

As shown below, the Estonian human medicines market showed a steady increase from 2014 to 2018 reaching 325 mln euros (excl. VAT).



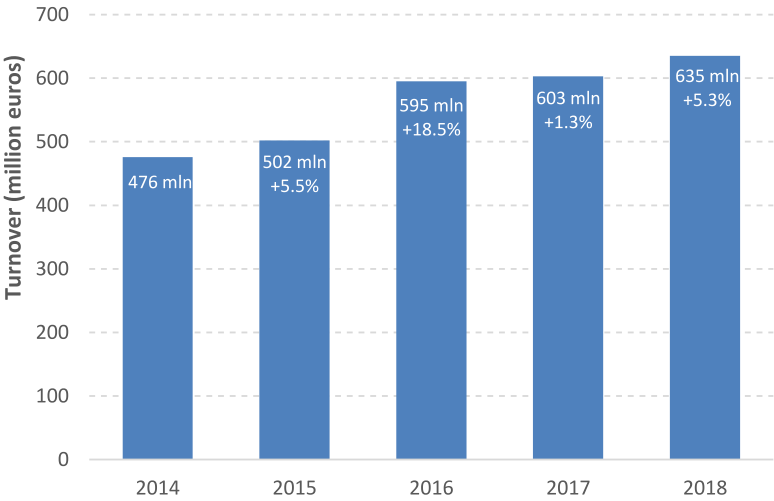
■ LATVIA

Medicines sales over the last 5 years has increased in Latvia by 30% reaching 366 million euros (excl. VAT) in 2018.



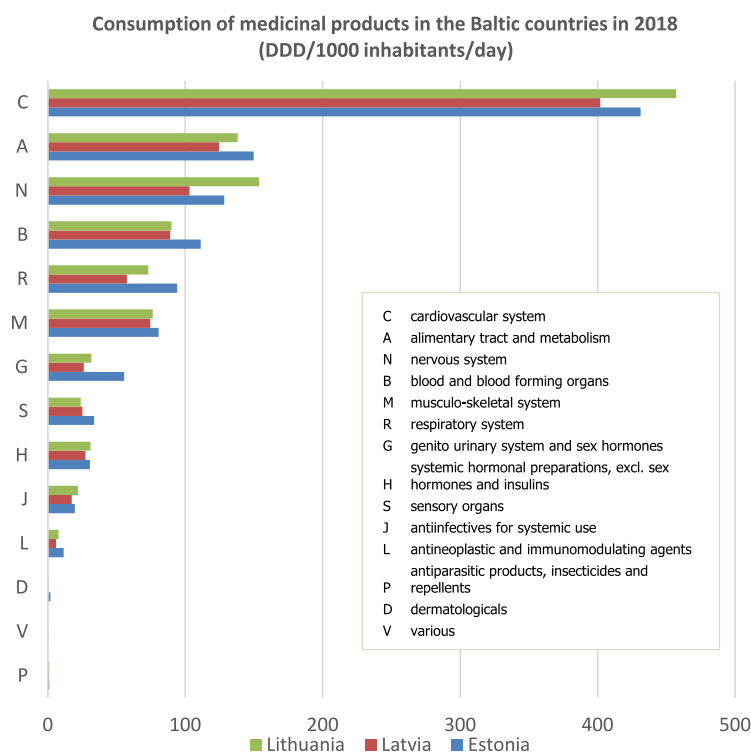
LITHUANIA

In 2016 the human medicinal products market reached 595 mln euros (excl. VAT) and had +18.5% increase. In 2018 market increased by 6.7% comparing to 2016, reaching 635 mln euros (excl VAT).



5.2 Sale of drugs according to the ATC main groups (DDD/1000 inhabitants/day)

When analyzing consumption of medicines using ATC/DDD methodology it is evident that the volumes of DIDs consumed by each Baltic country are quite similar and thereby readily comparable. The most widely used in all three Baltic countries is the group of cardiovascular drugs consumption of which exceeds more than threefold the consumption of second most widely used ATC groups in each country. The second most widely used group of medicines was an alimentary tract and metabolism drugs in Latvia and Estonia and the nervous system drugs in Lithuania.



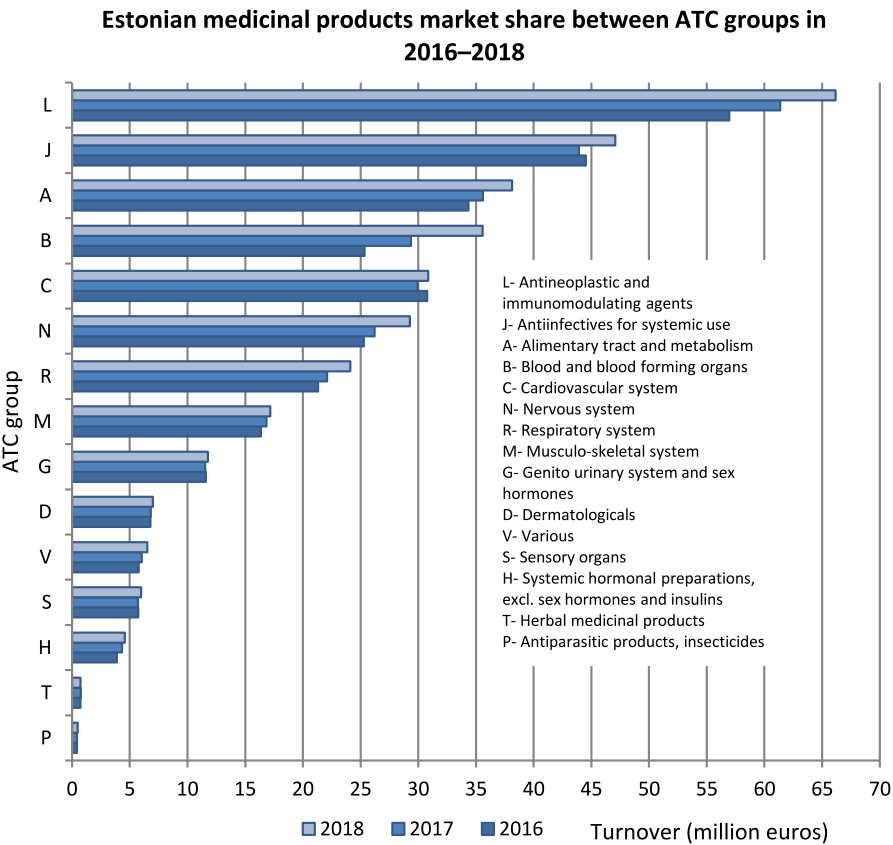
Estonia had the biggest consumption of medicines in 2018, which was 1148.72 DDD, Lithuania consumed 1106.11 DDD and Latvia – 953.92 DDD. Total consumption in Estonia increased by 8%, in Lithuania by 8 % and in Latvia by 4%, when comparing to 2015. Consumption of alimentary tract and metabolism drugs increased the most in Lithuania (increase of 30.63 DDD) and in Estonia (16.99 DDD). However in Latvia the most increase was in cardiovascular drugs – 31.76 DDD). What is more only in Latvia we can see decrease of consumption in respiratory system drugs (- 7.79 DDD), genito urinary system and sex hormones (-5.2 DDD), antiinfectives for systematic use (-1.12 DDD).

When comparing consumption by different ATC groups, we can see that Estonia is leading by consumption in all ATC groups, except for Cardiovascular drugs, Nervous system drugs, Hormones and insulins and antiinfectives for systematic use where Lithuania is leading.

5.3 Sale of drugs according to the ATC main groups (turnover)

■ ESTONIA

In 2018, 4292 different medicinal preparation packages and 1347 active substances were marketed in Estonia. Based on ATC classification antineoplastic and immunomodulating agents had the greatest market share (20%), followed by antiinfectives for systemic use (14%) and alimentary tract and metabolism medicines (12%).

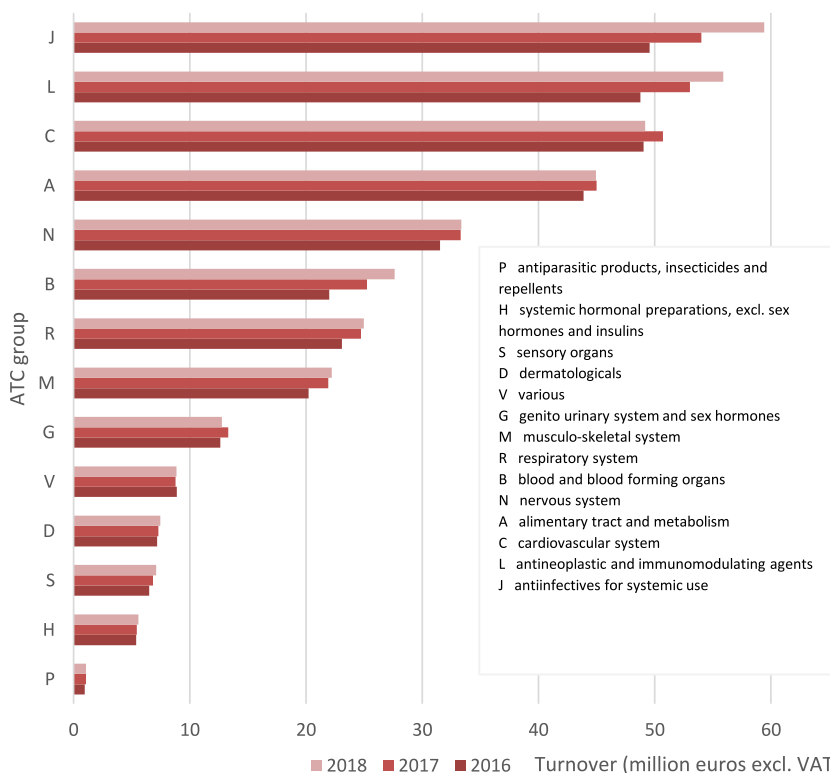


LATVIA

3569 different medicines containing 1373 different active substances and combinations of authorised medicines were distributed in Latvia in 2018. When comparing turnover of the main ATC groups of medicines during 2016 to 2018 the anti-infectives for systemic use made up the largest part i.e. 16% of the market in Latvia. Previously the largest share of the market was accounted for medicines intended for treatment of cardiovascular system diseases which now holds the third largest market share. The change in top positions is related to the entry of new expensive medicines into the market.

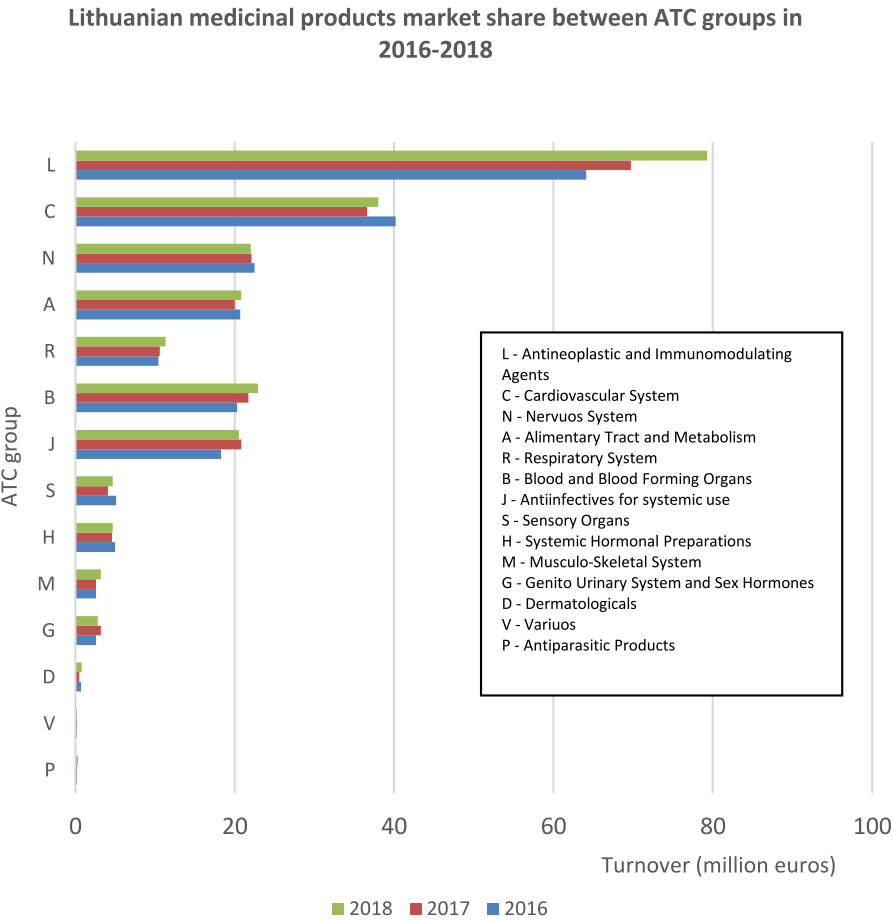
In 2017 the second and the third most sold groups of medicines switched places. Since then the second most sold group is the group of antineoplastic and immunomodulating agents with the market share of 15.5% and the third largest group is made of medicines intended for treatment of cardiovascular system diseases with almost 14% of total market share in 2018. The fourth and the fifth most sold groups of medicines since 2016 are medicines for treatment of alimentary tract and metabolism diseases (12.5%) and medicines for treatment of nervous system diseases (9%). The rest of the ATC groups covered about one third (33%) of medicinal products market in 2018.

Latvian medicinal products market share between ATC groups in 2016–2018



LITHUANIA

Lithuanian expenditure data is based on the NHIF database and depicts expenditure for medicines reimbursement and not wholesale turnover as the Estonian and Latvian data. OTC medicines and non-reimbursed medicines are not included on the figure.



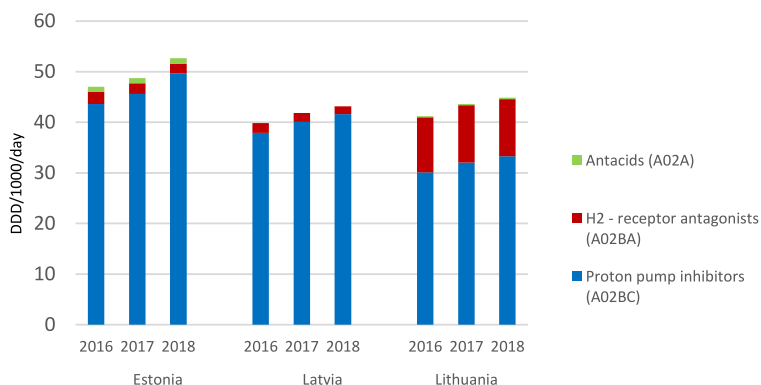
6. Sales statistics 2016–2018

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A	ALIMENTARY TRACT AND METABOLISM				
	Estonia	137.83	141.56	149.80	6
	Latvia	117.83	122.50	124.38	2
	Lithuania	125.95	129.83	138.17	6
A01	STOMATOLOGICAL PREPARATIONS				
	Estonia	0.07	0.07	0.07	3
	Latvia	3.11	2.69	2.54	-6
	Lithuania	0.87	0.81	3.46	328
A01A	STOMATOLOGICAL PREPARATIONS				
	Estonia	0.07	0.07	0.07	3
	Latvia	3.11	2.69	2.54	-6
	Lithuania	0.87	0.81	3.46	328
A01AA	Caries prophylactic agents				
	Estonia	-	-	-	
	Latvia	3.11	2.69	2.54	-6
	Lithuania	0.15	0.07	2.60	3670
A01AA01	sodium fluoride				
	Estonia	-	-	-	
	Latvia	3.11	2.69	2.54	-6
	Lithuania	0.15	0.07	2.60	3670
A01AB	Antiinfectives and antiseptics for local oral treatment				
	Estonia	0.07	0.07	0.07	3
	Latvia	-	-	-	
	Lithuania	0.08	0.06	0.07	18
A01AB09	miconazole				
	Estonia	0.07	0.07	0.07	3
	Latvia	-	-	-	
	Lithuania	0.08	0.06	0.07	18
A01AD	Other agents for local oral treatment				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.65	0.68	0.79	16
A01AD02	benzydamine				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.65	0.68	0.79	16
A02	DRUGS FOR ACID RELATED DISORDERS				
	Estonia	47.04	48.76	52.65	8
	Latvia	40.07	42.03	43.32	3
	Lithuania	41.43	43.74	44.98	3
A02A	ANTACIDS				
	Estonia	1.01	1.04	1.10	5
	Latvia	-	-	-	
	Lithuania	0.24	0.24	0.24	1
A02AD	Combinations and complexes of aluminium, calcium and magnesium compounds				
	Estonia	1.01	1.04	1.10	5
	Latvia	-	-	-	
	Lithuania	0.23	0.23	0.24	3

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A02AD01	ordinary salt combinations				
	Estonia	1.01	1.04	1.10	5
	Latvia	-	-	-	
	Lithuania	0.23	0.23	0.24	3
A02AF	Antacids with antifatulents				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	<0.01	<0.01	-	
A02AF02	ordinary salt combinations and antifatulents				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	<0.01	<0.01	-	
A02B	DRUGS FOR PEPTIC ULCER AND GASTRO-OESOPHAGEAL REFLUX DISEASE (GORD)				
	Estonia	46.03	47.71	51.55	8
	Latvia	40.07	42.03	43.32	3
	Lithuania	41.20	43.51	44.74	3
A02BA	H2-receptor antagonists				
	Estonia	2.39	2.12	1.87	-12
	Latvia	2.04	1.82	1.56	-14
	Lithuania	11.04	11.43	11.38	
A02BA02	ranitidine				
	Estonia	2.39	2.12	1.87	-12
	Latvia	1.97	1.77	1.52	-14
	Lithuania	10.88	11.34	11.31	
A02BA03	famotidine				
	Estonia	-	-	<0.01	
	Latvia	0.07	0.05	0.04	-20
	Lithuania	0.17	0.08	0.08	
A02BC	Proton pump inhibitors				
	Estonia	43.64	45.58	49.68	9
	Latvia	37.89	40.06	41.61	4
	Lithuania	30.10	32.03	33.29	4
A02BC01	omeprazole				
	Estonia	27.36	26.90	28.27	5
	Latvia	26.73	27.41	28.17	3
	Lithuania	20.45	21.79	22.14	2
A02BC02	pantoprazole				
	Estonia	8.96	10.24	11.87	16
	Latvia	7.58	8.30	8.61	4
	Lithuania	5.72	5.82	5.76	-1
A02BC03	lansoprazole				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	0.09	0.08	0.08	0
	Lithuania	0.48	0.47	0.43	-9
A02BC04	rabeprazole				
	Estonia	-	-	-	
	Latvia	0.21	0.24	0.20	-17
	Lithuania	1.27	0.93	0.74	-20
A02BC05	esomeprazole				
	Estonia	7.32	8.45	9.53	13
	Latvia	3.27	4.03	4.55	13
	Lithuania	1.58	2.42	3.53	46

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A02BC06	dexlansoprazole				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.61	0.60	0.70	17
A02BD	Combinations for eradication of <i>Helicobacter pylori</i>				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A02BD08	bismuth subcitrate, tetracycline and metronidazole				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A02BX	Other drugs for peptic ulcer and gastro-oesophageal reflux disease (GORD)				
	Estonia	-	<0.01	<0.01	
	Latvia	0.14	0.14	0.15	7
	Lithuania	0.05	0.05	0.07	44
A02BX02	sucralfate				
	Estonia	-	<0.01	<0.01	
	Latvia	0.14	0.14	0.15	7
	Lithuania	0.05	0.05	0.04	-8
A02BX05	bismuth subcitrate				
	Estonia	-	<0.01	-	
	Latvia	-	-	-	
	Lithuania	-	-	0.03	
A03	DRUGS FOR FUNCTIONAL GASTROINTESTINAL DISORDERS				
	Estonia	7.91	7.97	8.17	2
	Latvia	7.16	6.96	7.07	2
	Lithuania	7.50	7.85	7.46	-5
A03A	DRUGS FOR FUNCTIONAL GASTROINTESTINAL DISORDERS				
	Estonia	6.89	7.03	7.24	3
	Latvia	5.43	5.41	5.58	3
	Lithuania	6.04	6.52	6.19	-5

Consumption of drugs for acid related disorders (A02)



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A03AA	Synthetic anticholinergics, esters with tertiary amino group				
	Estonia	0.94	0.99	1.18	19
	Latvia	0.22	0.23	0.25	9
	Lithuania	0.27	0.32	0.36	12
A03AA04	mebeverine				
	Estonia	0.94	0.99	1.18	19
	Latvia	0.22	0.23	0.25	9
	Lithuania	0.27	0.32	0.36	12
A03AB	Synthetic anticholinergics, quaternary ammonium compounds				
	Estonia	<0.01	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A03AB02	glycopyrronium bromide				
	Estonia	<0.01	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A03AD	Papaverine and derivatives				
	Estonia	4.40	4.47	4.41	-1
	Latvia	4.45	4.42	4.57	3
	Lithuania	5.04	5.43	5.00	-8
A03AD01	papaverine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
A03AD02	drotaverine				
	Estonia	4.39	4.47	4.40	-1
	Latvia	4.45	4.42	4.57	3
	Lithuania	5.04	5.43	5.00	-8
A03AX	Other drugs for functional gastrointestinal disorders				
	Estonia	1.55	1.58	1.65	5
	Latvia	0.75	0.76	0.75	-1
	Lithuania	0.74	0.77	0.83	8
A03AX13	silicones				
	Estonia	1.55	1.58	1.65	5
	Latvia	0.75	0.76	0.75	-1
	Lithuania	0.52	0.53	0.55	5
A03AX58	alverine, combinations				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.22	0.24	0.28	13
A03B	BELLADONNA AND DERIVATIVES, PLAIN				
	Estonia	0.11	0.10	0.09	-5
	Latvia	0.41	0.39	0.38	-3
	Lithuania	0.08	0.07	0.08	22
A03BA	Belladonna alkaloids, tertiary amines				
	Estonia	0.10	0.08	0.07	-6
	Latvia	0.41	0.39	0.38	-3
	Lithuania	0.08	0.07	0.08	22
A03BA01	atropine				
	Estonia	0.10	0.08	0.07	-6
	Latvia	0.05	0.05	0.05	0
	Lithuania	0.08	0.07	0.08	22

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A03BA04	belladonna total alkaloids				
	Estonia	-	-	-	
	Latvia	0.36	0.34	0.34	0
	Lithuania	-	-	-	
A03BB	Belladonna alkaloids, semisynthetic, quaternary ammonium compounds				
	Estonia	0.02	0.01	0.01	
	Latvia	<0.01	<0.01	-	
	Lithuania	-	-	-	
A03BB01	butylscopolamine				
	Estonia	0.02	0.01	0.01	1
	Latvia	<0.01	<0.01	-	
	Lithuania	-	-	-	
A03F	PROPULSIVES				
	Estonia	0.91	0.85	0.84	-1
	Latvia	1.32	1.17	1.11	-5
	Lithuania	1.38	1.26	1.18	-6
A03FA	Propulsives				
	Estonia	0.91	0.85	0.84	-1
	Latvia	1.32	1.17	1.11	-5
	Lithuania	1.38	1.26	1.18	-6
A03FA01	metoclopramide				
	Estonia	0.86	0.81	0.80	-1
	Latvia	0.94	0.84	0.78	-7
	Lithuania	1.07	0.99	0.93	-6
A03FA03	domperidone				
	Estonia	0.04	0.04	0.04	-3
	Latvia	0.37	0.33	0.33	
	Lithuania	0.31	0.27	0.25	-8
A04	ANTIEMETICS AND ANTINAUSEANTS				
	Estonia	0.12	0.12	0.13	5
	Latvia	0.07	0.09	0.13	44
	Lithuania	0.12	0.14	0.14	4
A04A	ANTIEMETICS AND ANTINAUSEANTS				
	Estonia	0.12	0.12	0.13	5
	Latvia	0.07	0.09	0.13	44
	Lithuania	0.12	0.14	0.14	4
A04AA	Serotonin (5HT3) antagonists				
	Estonia	0.11	0.11	0.12	5
	Latvia	0.07	0.09	0.13	44
	Lithuania	0.12	0.13	0.14	4
A04AA01	ondansetron				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	0.06	0.07	0.11	57
	Lithuania	0.11	0.13	0.14	7
A04AA02	granisetron				
	Estonia	0.11	0.11	0.11	5
	Latvia	<0.01	-	-	
	Lithuania	-	-	-	
A04AA05	palonosetron				
	Estonia	-	-	-	
	Latvia	0.01	0.01	0.01	0
	Lithuania	<0.01	<0.01	<0.01	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A04AA55	palonosetron, combinations				
	Estonia	-	-	-	
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	
A04AD	Other antiemetics				
	Estonia	0.01	0.01	0.01	2
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
A04AD01	scopolamine				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A04AD12	aprepitant				
	Estonia	0.01	0.01	0.01	2
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
A05	BILE AND LIVER THERAPY				
	Estonia	0.49	0.50	0.55	11
	Latvia	0.32	0.34	0.42	24
	Lithuania	0.12	0.36	0.39	8
A05A	BILE THERAPY				
	Estonia	0.49	0.50	0.55	11
	Latvia	0.32	0.34	0.42	24
	Lithuania	0.12	0.36	0.39	8
A05AA	Bile acid preparations				
	Estonia	0.49	0.50	0.55	11
	Latvia	0.32	0.34	0.42	24
	Lithuania	0.12	0.36	0.39	8
A05AA02	ursodeoxycholic acid				
	Estonia	0.49	0.50	0.55	11
	Latvia	0.32	0.34	0.42	24
	Lithuania	0.12	0.36	0.39	8
A06	DRUGS FOR CONSTIPATION				
	Estonia	15.09	15.63	16.34	5
	Latvia	9.10	9.20	9.51	3
	Lithuania	11.22	11.50	12.57	9
A06A	DRUGS FOR CONSTIPATION				
	Estonia	15.09	15.63	16.34	5
	Latvia	9.10	9.20	9.51	3
	Lithuania	11.22	11.50	12.57	9
A06AA	Softeners, emollients				
	Estonia	-	-	-	
	Latvia	0.04	0.04	0.03	-25
	Lithuania	-	-	-	
A06AA01	liquid paraffin				
	Estonia	-	-	-	
	Latvia	0.04	0.04	0.03	-25
	Lithuania	-	-	-	
A06AB	Contact laxatives				
	Estonia	7.11	7.45	7.67	3
	Latvia	5.82	5.72	6.02	5
	Lithuania	5.68	5.68	6.54	15

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A06AB02	bisacodyl				
	Estonia	3.22	3.32	3.32	
	Latvia	2.92	2.85	2.77	-3
	Lithuania	2.45	2.33	2.27	-2
A06AB05	castor oil				
	Estonia	-	-	-	
	Latvia	0.06	0.06	0.06	0
	Lithuania	-	-	-	
A06AB06	senna glycosides				
	Estonia	0.02	0.02	0.01	-34
	Latvia	-	-	-	
	Lithuania	-	-	-	
A06AB08	sodium picosulfate				
	Estonia	3.86	4.10	4.33	6
	Latvia	2.84	2.81	3.18	13
	Lithuania	3.23	3.37	4.27	27
A06AB58	sodium picosulfate, combinations				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
A06AC	Bulk-forming laxatives				
	Estonia	-	-	-	
	Latvia	0.09	0.09	0.11	22
	Lithuania	0.08	0.08	0.08	9
A06AC01	ispaghula (psylla seeds)				
	Estonia	-	-	-	
	Latvia	0.09	0.09	0.11	22
	Lithuania	0.08	0.08	0.08	9
A06AD	Osmotically acting laxatives				
	Estonia	7.14	7.32	7.76	6
	Latvia	3.16	3.35	3.35	
	Lithuania	4.90	5.18	5.36	3
A06AD11	lactulose				
	Estonia	6.80	6.94	7.37	6
	Latvia	2.82	3.00	2.97	-1
	Lithuania	4.14	4.38	4.54	4
A06AD15	macrogol				
	Estonia	0.33	0.38	0.39	2
	Latvia	0.28	0.29	0.32	10
	Lithuania	0.76	0.80	0.82	2
A06AD65	macrogol, combinations				
	Estonia	-	-	-	
	Latvia	0.06	0.06	0.07	17
	Lithuania	-	-	-	
A06AG	Enemas				
	Estonia	0.84	0.86	0.91	6
	Latvia	-	-	-	
	Lithuania	0.55	0.54	0.59	9
A06AG11	sodium lauryl sulfoacetate, incl. combinations				
	Estonia	0.84	0.86	0.91	6
	Latvia	-	-	-	
	Lithuania	0.55	0.54	0.59	9

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A06AH	Peripheral opioid receptor antagonists				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A06AH03	naloxegol				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A07	ANTIDIARRHEALS, INTESTINAL ANTIINFLAMMATORY/ANTIINFECTIVE AGENTS				
	Estonia	3.87	4.08	4.38	7
	Latvia	3.53	3.53	3.89	10
	Lithuania	3.57	3.55	3.82	8
A07A	INTESTINAL ANTIINFECTIVES				
	Estonia	-	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	0.13	0.13	0.12	-7
A07AA	Antibiotics				
	Estonia	-	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	0.13	0.13	0.12	-7
A07AA02	nystatin				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.13	0.13	0.12	-7
A07AA11	rifaximin				
	Estonia	-	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A07AA12	fidaxomicin				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A07B	INTESTINAL ADSORBENTS				
	Estonia	0.46	0.44	0.45	3
	Latvia	0.80	0.69	0.75	9
	Lithuania	1.01	0.95	1.05	11
A07BC	Other intestinal adsorbents				
	Estonia	0.46	0.44	0.45	3
	Latvia	0.80	0.69	0.75	9
	Lithuania	1.01	0.95	1.05	11
A07BC05	diosmectite				
	Estonia	0.46	0.44	0.45	3
	Latvia	0.80	0.69	0.75	9
	Lithuania	1.01	0.95	1.05	11
A07D	ANTIPROPULSIVES				
	Estonia	0.92	1.00	1.02	3
	Latvia	0.79	0.77	0.76	-1
	Lithuania	1.03	1.02	1.02	
A07DA	Antipropulsives				
	Estonia	0.92	1.00	1.02	3
	Latvia	0.79	0.77	0.76	-1
	Lithuania	1.03	1.02	1.02	

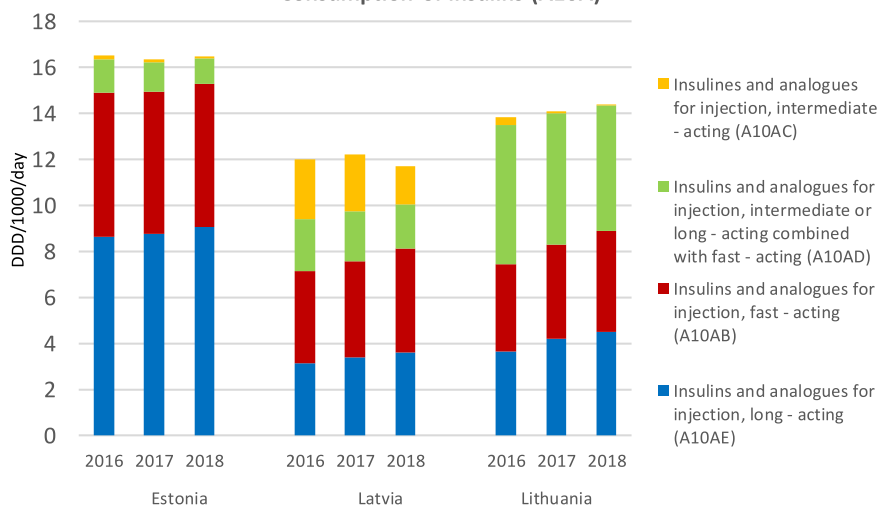
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A07DA03	loperamide				
	Estonia	0.92	1.00	1.02	3
	Latvia	0.79	0.77	0.76	-1
	Lithuania	1.03	1.02	1.02	
A07DA06	eluxadoline				
	Estonia	-	<0.01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A07E	INTESTINAL ANTIINFLAMMATORY AGENTS				
	Estonia	1.91	2.02	2.21	9
	Latvia	1.20	1.33	1.56	17
	Lithuania	1.21	1.25	1.39	11
A07EA	Corticosteroids acting locally				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	0.01	9
A07EA06	budesonide				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	0.01	9
A07EC	Aminosalicylic acid and similar agents				
	Estonia	1.91	2.02	2.21	9
	Latvia	1.20	1.32	1.56	18
	Lithuania	1.21	1.24	1.37	11
A07EC01	sulfasalazine				
	Estonia	0.81	0.83	0.82	-1
	Latvia	0.78	0.81	0.79	-2
	Lithuania	0.38	0.40	0.41	3
A07EC02	mesalazine				
	Estonia	1.09	1.19	1.39	17
	Latvia	0.42	0.52	0.77	48
	Lithuania	0.83	0.84	0.96	15
A07F	ANTIDIARRHEAL MICROORGANISMS				
	Estonia	0.58	0.62	0.70	13
	Latvia	0.74	0.74	0.81	9
	Lithuania	0.18	0.20	0.25	21
A07FA	Antidiarrheal microorganisms				
	Estonia	0.58	0.62	0.70	13
	Latvia	0.74	0.74	0.81	9
	Lithuania	0.18	0.20	0.25	21
A07FA01	lactic acid producing organisms				
	Estonia	-	-	-	
	Latvia	0.37	0.37	0.40	8
	Lithuania	-	-	-	
A07FA02	saccharomyces boulardii				
	Estonia	0.58	0.62	0.70	13
	Latvia	0.36	0.37	0.41	11
	Lithuania	0.18	0.20	0.25	21
A08	ANTIOBESITY PREPARATIONS, EXCL. DIET PRODUCTS				
	Estonia	0.02	0.05	0.06	15
	Latvia	0.03	0.04	0.04	0
	Lithuania	0.03	0.03	0.04	31

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A08A	ANTIOBESITY PREPARATIONS, EXCL. DIET PRODUCTS				
	Estonia	0.02	0.05	0.06	15
	Latvia	0.03	0.04	0.04	0
	Lithuania	0.03	0.03	0.04	31
A08AA	Centrally acting antiobesity products				
	Estonia	-	0.04	0.06	52
	Latvia	-	0.01	0.01	0
	Lithuania	-	-	-	
A08AA62	bupropion and naltrexone				
	Estonia	-	0.04	0.06	52
	Latvia	-	0.01	0.01	0
	Lithuania	-	-	-	
A08AB	Peripherally acting antiobesity products				
	Estonia	0.02	0.02	0.01	-68
	Latvia	0.03	0.03	0.03	0
	Lithuania	0.03	0.03	0.04	31
A08AB01	orlistat				
	Estonia	0.02	0.02	0.01	-68
	Latvia	0.03	0.03	0.03	0
	Lithuania	0.03	0.03	0.04	31
A09	DIGESTIVES, INCL. ENZYMES				
	Estonia	1.46	1.49	1.55	4
	Latvia	3.39	3.46	2.63	-24
	Lithuania	-	-	-	
A09A	DIGESTIVES, INCL. ENZYMES				
	Estonia	1.46	1.49	1.55	4
	Latvia	3.39	3.46	2.63	-24
	Lithuania	-	-	-	
A09AA	Enzyme preparations				
	Estonia	1.46	1.49	1.55	4
	Latvia	3.39	3.46	2.63	-24
	Lithuania	-	-	-	
A09AA02	multienzymes (lipase, protease etc.)				
	Estonia	1.46	1.49	1.55	4
	Latvia	3.39	3.46	2.63	-24
	Lithuania	-	-	-	
A09AC	Enzyme and acid preparations, combinations				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A09AC01	pepsin and acid preparations				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A10	DRUGS USED IN DIABETES				
	Estonia	61.38	62.51	65.41	5
	Latvia	49.57	52.48	53.04	1
	Lithuania	47.79	50.02	53.63	7
A10A	INSULINS AND ANALOGUES				
	Estonia	16.50	16.36	16.49	1
	Latvia	12.02	12.21	11.69	-4
	Lithuania	13.83	14.07	14.37	2

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A10AB	Insulins and analogues for injection, fast-acting				
	Estonia	6.26	6.17	6.23	1
	Latvia	3.99	4.17	4.49	8
	Lithuania	3.80	4.08	4.38	7
A10AB01	insulin (human)				
	Estonia	0.05	0.05	0.05	-1
	Latvia	0.08	0.07	0.07	0
	Lithuania	0.05	0.04	0.04	
A10AB04	insulin lispro				
	Estonia	1.30	1.35	1.35	
	Latvia	0.44	0.65	1.16	78
	Lithuania	1.25	1.51	1.59	6
A10AB05	insulin aspart				
	Estonia	4.21	4.06	4.13	2
	Latvia	2.33	2.32	2.23	-4
	Lithuania	1.59	1.64	1.88	15
A10AB06	insulin glulisine				
	Estonia	0.71	0.72	0.70	-2
	Latvia	1.15	1.12	1.03	-8
	Lithuania	0.92	0.89	0.86	-4
A10AC	Insulins and analogues for injection, intermediate-acting				
	Estonia	0.14	0.13	0.11	-17
	Latvia	2.60	2.48	1.64	-34
	Lithuania	0.31	0.05	0.03	-44
A10AC01	insulin (human)				
	Estonia	0.14	0.13	0.11	-17
	Latvia	1.78	1.72	1.54	-10
	Lithuania	0.05	0.04	0.03	-37
A10AC04	insulin lispro				
	Estonia	-	-	-	
	Latvia	0.82	0.76	0.10	-87
	Lithuania	0.27	0.01	-	
A10AD	Insulins and analogues for injection, intermediate- or long-acting combined with fast-acting				
	Estonia	1.48	1.29	1.09	-16
	Latvia	2.29	2.18	1.94	-11
	Lithuania	6.07	5.75	5.45	-5
A10AD04	insulin lispro				
	Estonia	0.55	0.45	0.36	-20
	Latvia	1.03	0.97	0.87	-10
	Lithuania	3.20	3.22	3.02	-6
A10AD05	insulin aspart				
	Estonia	0.93	0.84	0.73	-13
	Latvia	1.26	1.21	1.08	-11
	Lithuania	2.87	2.53	2.43	-4
A10AE	Insulins and analogues for injection, long-acting				
	Estonia	8.62	8.76	9.06	3
	Latvia	3.13	3.39	3.62	7
	Lithuania	3.64	4.19	4.51	8
A10AE04	insulin glargine				
	Estonia	4.90	5.33	5.47	3
	Latvia	2.00	2.28	2.48	9
	Lithuania	2.31	2.61	2.86	9

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A10AE05	insulin detemir				
	Estonia	3.72	3.43	3.15	-8
	Latvia	1.13	1.11	1.09	-2
	Lithuania	0.80	0.60	0.53	-13
A10AE06	insulin degludec				
	Estonia	-	-	0.37	
	Latvia	-	-	-	
	Lithuania	0.53	0.97	1.13	17
A10AE54	insulin glargine and lixisenatide				
	Estonia	-	-	0.07	
	Latvia	-	-	0.05	
	Lithuania	-	-	-	
A10AE56	insulin degludec and liraglutide				
	Estonia	-	-	-	
	Latvia	-	<0.01	<0.01	
	Lithuania	-	-	-	
A10B	BLOOD GLUCOSE LOWERING DRUGS, EXCL. INSULINS				
	Estonia	44.89	46.15	48.92	6
	Latvia	37.55	40.27	41.34	3
	Lithuania	33.97	35.96	39.27	9
A10BA	Biguanides				
	Estonia	19.72	20.11	21.02	4
	Latvia	14.91	15.18	16.48	9
	Lithuania	18.03	19.44	21.25	9
A10BA02	metformin				
	Estonia	19.72	20.11	21.02	4
	Latvia	14.91	15.18	16.48	9
	Lithuania	18.03	19.44	21.25	9
A10BB	Sulfonylureas				
	Estonia	15.37	14.51	14.09	-3
	Latvia	13.17	13.72	13.11	-4
	Lithuania	13.94	14.70	15.44	5

Consumption of insulins (A10A)

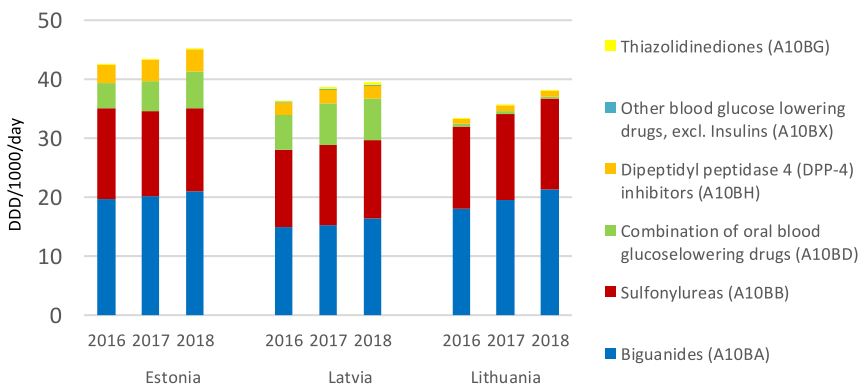


ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A10BB07	glipizide				
	Estonia	0.29	0.24	0.22	-12
	Latvia	0.43	0.39	0.38	-3
	Lithuania	0.81	0.81	0.80	
A10BB08	gliquidone				
	Estonia	-	-	-	
	Latvia	0.22	0.23	0.23	0
	Lithuania	0.10	0.10	0.11	10
A10BB09	gliclazide				
	Estonia	8.62	8.08	7.90	-2
	Latvia	8.24	9.09	8.86	-3
	Lithuania	10.60	11.62	12.58	8
A10BB12	glimepiride				
	Estonia	6.46	6.18	5.99	-3
	Latvia	4.29	4.01	3.64	-9
	Lithuania	2.44	2.18	1.94	-11
A10BD	Combinations of oral blood glucose lowering drugs				
	Estonia	4.21	5.09	6.22	22
	Latvia	5.93	6.97	7.06	1
	Lithuania	0.47	0.48	0.42	-11
A10BD05	metformin and pioglitazone				
	Estonia	-	-	-	
	Latvia	0.85	0.67	<0.01	
	Lithuania	0.08	0.06	<0.01	-97
A10BD07	metformin and sitagliptin				
	Estonia	1.93	2.11	2.39	13
	Latvia	1.97	2.28	1.83	-20
	Lithuania	0.39	0.42	0.42	1
A10BD08	metformin and vildagliptin				
	Estonia	0.83	0.99	1.20	22
	Latvia	1.16	1.29	2.17	68
	Lithuania	-	-	-	
A10BD09	pioglitazone and alogliptin				
	Estonia	-	-	-	
	Latvia	0.14	0.17	0.29	71
	Lithuania	-	-	-	
A10BD10	metformin and saxagliptin				
	Estonia	0.32	0.33	0.33	
	Latvia	0.21	0.20	0.17	-15
	Lithuania	-	-	-	
A10BD11	metformin and linagliptin				
	Estonia	0.69	0.80	0.89	12
	Latvia	0.66	0.75	0.50	-33
	Lithuania	-	-	-	
A10BD13	metformin and alogliptin				
	Estonia	-	-	-	
	Latvia	0.46	0.43	0.33	-23
	Lithuania	-	-	-	
A10BD15	metformin and dapagliflozin				
	Estonia	0.16	0.27	0.39	48
	Latvia	0.20	0.39	0.58	49
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A10BD19	linagliptin and empagliflozin				
	Estonia	-	0.04	0.18	394
	Latvia	-	0.04	0.09	154
	Lithuania	-	-	-	
A10BD20	metformin and empagliflozin				
	Estonia	0.28	0.52	0.72	40
	Latvia	0.30	0.75	1.07	44
	Lithuania	-	-	-	
A10BD21	saxagliptin and dapagliflozin				
	Estonia	-	0.03	0.10	180
	Latvia	-	0.01	0.01	
	Lithuania	-	-	-	
A10BF	Alpha glucosidase inhibitors				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A10BF01	acarbose				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A10BG	Thiazolidinediones				
	Estonia	0.09	0.11	0.11	-1
	Latvia	0.28	0.31	0.42	37
	Lithuania	0.18	0.13	0.12	-12
A10BG03	pioglitazone				
	Estonia	0.09	0.11	0.11	-1
	Latvia	0.28	0.31	0.42	37
	Lithuania	0.18	0.13	0.12	-12
A10BH	Dipeptidyl peptidase 4 (DPP-4) inhibitors				
	Estonia	3.20	3.50	3.81	9
	Latvia	1.99	2.33	2.27	-2
	Lithuania	0.88	0.89	0.87	-3
A10BH01	sitagliptin				
	Estonia	1.50	1.49	1.48	-1
	Latvia	0.50	0.71	0.70	-2
	Lithuania	0.72	0.66	0.59	-11
A10BH02	vildagliptin				
	Estonia	0.16	0.16	0.17	9
	Latvia	0.24	0.26	0.52	99
	Lithuania	0.03	0.02	0.02	-29
A10BH03	saxagliptin				
	Estonia	0.22	0.21	0.22	7
	Latvia	0.11	0.09	0.06	-36
	Lithuania	0.03	0.02	0.02	-11
A10BH04	alogliptin				
	Estonia	<0.01	-	-	
	Latvia	0.06	0.07	0.09	31
	Lithuania	-	-	-	
A10BH05	linagliptin				
	Estonia	1.32	1.65	1.94	18
	Latvia	1.08	1.19	0.91	-24
	Lithuania	0.10	0.19	0.24	31

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A10BJ	Glucagon-like peptide-1 (GLP-1) analogues				
	Estonia	1.43	1.53	1.90	24
	Latvia	0.24	0.39	0.52	34
	Lithuania	0.45	0.25	0.80	223
A10BJ01	exenatide				
	Estonia	0.09	0.09	0.09	-6
	Latvia	0.06	0.14	0.21	49
	Lithuania	0.39	0.05	0.37	606
A10BJ02	liraglutide				
	Estonia	1.19	1.30	1.69	30
	Latvia	0.14	0.18	0.24	33
	Lithuania	0.01	0.15	0.37	154
A10BJ03	lixisenatide				
	Estonia	0.15	0.14	0.12	-9
	Latvia	0.04	0.07	0.07	8
	Lithuania	0.05	0.05	0.06	20
A10BK	Sodium-glucose co-transporter 2 (SGLT2) inhibitors				
	Estonia	0.86	1.30	1.77	36
	Latvia	0.86	1.21	1.32	9
	Lithuania	0.02	0.07	0.37	419
A10BK01	dapagliflozin				
	Estonia	0.45	0.58	0.77	33
	Latvia	0.43	0.44	0.45	4
	Lithuania	0.01	0.05	0.25	413
A10BK03	empagliflozin				
	Estonia	0.41	0.72	0.99	38
	Latvia	0.43	0.78	0.87	12
	Lithuania	0.01	0.02	0.13	433
A10BX	Other blood glucose lowering drugs, excl. insulins				
	Estonia	-	-	-	
	Latvia	0.17	0.16	0.16	2
	Lithuania	-	-	-	
A10BX02	repaglinide				
	Estonia	-	-	-	
	Latvia	0.17	0.16	0.16	2
	Lithuania	-	-	-	

Consumption of blood glucose lowering drugs excl. insulins A10B



Consumption of anti-diabetic medications

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The statistics on the use of anti-diabetic medications in the Baltic countries tell us an exciting story about the treatment and trends of the disease in three neighbouring countries. I would assume that the prevalence and morbidity of type 2 diabetes are very similar in our countries. Although IDF (International Diabetes Federation) estimates the prevalence of diabetes in the adult population of different Baltic countries to be at 5–7%, the realistic number is around 7%. As our physicians' understanding of modern treatment for diabetes is also almost the same, a rather similar level of overall use of medications can be expected and predicted.

When we look at the big picture, we can see that the use of medications in absolute numbers, as well as changes in time are almost identical in Estonia, Latvia, and Lithuania.

Use of insulins

Of the anti-diabetic medications, only insulins can be used to treat both type 1 and type 2 diabetes. As type 1 diabetes is a much less common disease, therefore, insulins are used mostly by patients with type 2 diabetes. When observing the use of insulins, it should be first noted that the total use of insulins has not increased or even decreased over the last five years. At the same time, the number of patients is on the rise due to the increased incidence of disease and greater life expectancy. Thus, the opposite trend of the use of insulins suggests that the introduction of the newer medications for type 2 diabetes delays the addition of insulins to the regimen and may also reduce insulin doses and/or injections in combined regimens.

In Latvia, the total use of insulins is 10–20% lower than in Estonia and Lithuania, which, in my opinion, refers to some obstacle in terms of starting and/or carrying out insulin treatment.

The use of mixed insulin is very different: In Estonia, the use of medium and short term combined insulins is extremely modest, however, it is rather frequent in Latvia and, in Lithuania, their use frequency is almost five times higher than in Estonia.

Use of other anti-diabetic medications

Traditional anti-diabetic medications metformin and sulphonylureas are the most popular medications in all three countries. The use of metformin is constantly rising, which corresponds well to the current treatment standard, where all patients who do not have any contraindications should also use metformin in their regimen. Sulphonylureas are the second most popular group of medicines, and their use has been somewhat declining (Estonia), stable (Latvia) or slightly rising (Lithuania). As these medications are effective, inexpensive, and also demonstrated cardiovascular

safety in the last study (glimepiride v linagliptin, CAROLINA, ADA 2019), their widespread use is very reasonable.

With regard to the new medication groups (SGLT-2 inhibitors, GLP-1 agonists), the Estonian Health Insurance Fund has been the fastest to make compensation decisions and, therefore, these medications have become available in Estonia a little earlier. Thus, the use of these medications is also slightly higher in Estonia, followed by Latvia and Lithuania.

These are precisely the medications for which the fastest growth potential can be predicted in the coming years. This is thanks to positive results in cardiovascular safety studies, where both groups have surprisingly led to decrease in the incidence of cardiovascular diseases. Therefore, their use by diabetic patients with a cardiovascular disease and also by those who are at high risk of having a cardiovascular disease is fully justified.

In summary, it can be said that there are only minor differences in the use of anti-diabetic medications in the Baltic countries, and these are mainly due to different medication compensation systems.

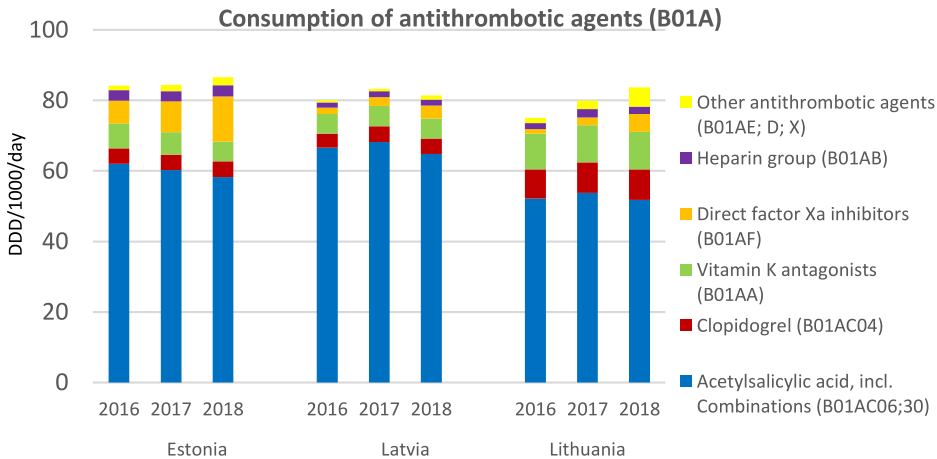
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A14	ANABOLIC AGENTS FOR SYSTEMIC USE				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	0.07	0.07	0.04	-38
	Lithuania	0.06	0.06	0.05	-9
A14A	ANABOLIC STEROIDS				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	0.07	0.07	0.04	-38
	Lithuania	0.06	0.06	0.05	-9
A14AB	Estren derivatives				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	0.07	0.07	0.04	-38
	Lithuania	0.06	0.06	0.05	-9
A14AB01	nandrolone				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	0.07	0.07	0.04	-38
	Lithuania	0.06	0.06	0.05	-9
A16	OTHER ALIMENTARY TRACT AND METABOLISM PRODUCTS				
	Estonia	0.37	0.38	0.47	25
	Latvia	1.42	1.61	1.76	9
	Lithuania	0.86	0.36	0.50	40
A16A	OTHER ALIMENTARY TRACT AND METABOLISM PRODUCTS				
	Estonia	0.37	0.38	0.47	25
	Latvia	1.42	1.61	1.76	9
	Lithuania	0.86	0.36	0.50	40
A16AA	Amino acids and derivatives				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
A16AA01	levocarnitine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
A16AA04	mercaptamine				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A16AA05	carglumic acid				
	Estonia	-	-	-	
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	
A16AA06	betaine				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
A16AB	Enzymes				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
A16AB02	imiglucerase				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
A16AB03	agalsidase alfa				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	<0.01	<0.01	
A16AB04	agalsidase beta				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	<0.01	<0.01	<0.01	
A16AB05	laronidase				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
A16AB07	alglucosidase alfa				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	-	
	Lithuania	-	<0.01	<0.01	
A16AB10	velaglucerase alfa				
	Estonia	<0.01	<0.01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
A16AX	Various alimentary tract and metabolism products				
	Estonia	0.36	0.37	0.46	26
	Latvia	1.42	1.61	1.76	9
	Lithuania	0.86	0.35	0.49	39
A16AX01	thioctic acid				
	Estonia	0.35	0.36	0.45	26
	Latvia	1.41	1.61	1.76	9
	Lithuania	0.86	0.35	0.49	39
A16AX03	sodium phenylbutyrate				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
A16AX04	nitisinone				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	<0.01	<0.01	<0.01	
A16AX05	zinc acetate				
	Estonia	0.01	0.01	0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
A16AX06	miglustat				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	<0.01	<0.01	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
B	BLOOD AND BLOOD FORMING ORGANS				
	Estonia	105.22	107.06	111.09	4
	Latvia	86.98	90.43	88.96	-2
	Lithuania	83.28	88.33	89.90	2
B01	ANTITHROMBOTIC AGENTS				
	Estonia	85.09	85.31	87.72	3
	Latvia	80.55	83.90	81.97	-2
	Lithuania	74.50	78.60	80.07	2
B01A	ANTITHROMBOTIC AGENTS				
	Estonia	85.09	85.31	87.72	3
	Latvia	80.55	83.90	81.97	-2
	Lithuania	74.50	78.60	80.07	2
B01AA	Vitamin K antagonists				
	Estonia	7.03	6.38	5.58	-12
	Latvia	5.58	5.83	5.65	-3
	Lithuania	10.21	10.63	10.64	
B01AA03	warfarin				
	Estonia	7.03	6.38	5.58	-12
	Latvia	5.58	5.83	5.65	-3
	Lithuania	10.21	10.63	10.64	
B01AA07	acenocoumarol				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	<0.01	-	-	
B01AB	Heparin group				
	Estonia	2.91	2.96	3.16	7
	Latvia	1.53	1.64	1.71	4
	Lithuania	1.75	2.44	2.17	-11
B01AB01	heparin				
	Estonia	0.10	0.11	0.11	-2
	Latvia	0.20	0.19	0.18	-4
	Lithuania	0.35	0.35	0.36	2
B01AB04	dalteparin				
	Estonia	0.09	0.09	<0.01	-100
	Latvia	0.31	0.32	0.39	21
	Lithuania	-	-	-	
B01AB05	enoxaparin				
	Estonia	2.21	2.30	2.55	11
	Latvia	0.39	0.43	0.51	19
	Lithuania	0.14	0.10	0.04	-57
B01AB06	nadroparin				
	Estonia	0.02	0.02	0.01	-52
	Latvia	0.48	0.52	0.41	-21
	Lithuania	0.79	1.27	1.06	-16
B01AB12	bemiparin				
	Estonia	0.48	0.44	0.50	12
	Latvia	0.15	0.18	0.21	16
	Lithuania	0.47	0.72	0.71	-1
B01AC	Platelet aggregation inhibitors excl. heparin				
	Estonia	67.30	65.56	63.81	-3
	Latvia	71.14	73.21	69.76	-5
	Lithuania	61.04	63.14	61.87	-2

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
B01AC04	clopidogrel				
	Estonia	4.47	4.43	4.48	1
	Latvia	3.99	4.40	4.33	-2
	Lithuania	8.19	8.62	8.69	1
B01AC06	acetylsalicylic acid				
	Estonia	13.53	13.39	13.05	-3
	Latvia	65.04	66.61	63.15	-5
	Lithuania	52.10	53.66	51.66	-4
B01AC07	dipyridamole				
	Estonia	-	<0.01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
B01AC11	iloprost				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
B01AC16	eptifibatide				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
B01AC17	tirofiban				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
B01AC21	Treprostinil				
	Estonia	-	-	-	
	Latvia	<0.01	-	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
B01AC23	cilostazol				
	Estonia	-	-	-	
	Latvia	0.11	0.10	0.09	-12
	Lithuania	0.41	0.51	0.63	23
B01AC24	ticagrelor				
	Estonia	0.85	0.93	1.11	19
	Latvia	0.44	0.47	0.50	5
	Lithuania	0.22	0.25	0.79	213
B01AC25	cangrelor				
	Estonia	-	-	-	
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	
B01AC30	combinations				
	Estonia	48.45	46.82	45.18	-4
	Latvia	1.56	1.63	1.69	4
	Lithuania	0.12	0.10	0.10	-5
B01AD	Enzymes				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	<0.01	<0.01	
B01AD01	streptokinase				
	Estonia	<0.01	-	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
B01AD02	alteplase				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	<0.01	<0.01	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
B01AD11	tenecteplase				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	<0.01	-	
B01AE	Direct thrombin inhibitors				
	Estonia	1.36	1.74	2.32	33
	Latvia	0.55	0.75	1.17	57
	Lithuania	1.49	2.40	5.39	124
B01AE07	dabigatran etexilate				
	Estonia	1.36	1.74	2.32	33
	Latvia	0.55	0.75	1.17	57
	Lithuania	0.26	0.29	0.37	30
B01AF	Direct factor Xa inhibitors				
	Estonia	6.49	8.66	12.83	48
	Latvia	1.74	2.47	3.68	49
	Lithuania	1.23	2.12	5.02	137
B01AF01	rivaroxaban				
	Estonia	5.23	6.13	8.18	33
	Latvia	1.73	2.45	3.66	49
	Lithuania	1.10	1.88	4.05	115
B01AF02	apixaban				
	Estonia	1.26	2.53	4.65	84
	Latvia	0.02	0.02	0.02	18
	Lithuania	0.14	0.23	0.97	319
B01AX	Other antithrombotic agents				
	Estonia	0.01	0.01	0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	-	-	
B01AX05	fondaparinux				
	Estonia	0.01	0.01	0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	-	-	



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
B02	ANTIHEMORRHAGICS				
	Estonia	0.14	0.15	0.16	4
	Latvia	0.03	0.03	0.03	-12
	Lithuania	0.02	0.01	0.01	
B02A	ANTIFIBRINOLYTICS				
	Estonia	0.13	0.14	0.14	5
	Latvia	0.02	0.02	0.02	-17
	Lithuania	-	-	-	
B02AA	Amino acids				
	Estonia	0.13	0.14	0.14	5
	Latvia	0.02	0.02	0.02	-17
	Lithuania	-	-	-	
B02AA01	aminocaproic acid				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
B02AA02	tranexamic acid				
	Estonia	0.12	0.13	0.14	6
	Latvia	0.02	0.02	0.02	-17
	Lithuania	-	-	-	
B02B	VITAMIN K AND OTHER HEMOSTATICS				
	Estonia	0.02	0.02	0.02	1
	Latvia	0.01	0.01	0.01	2
	Lithuania	0.02	0.01	0.01	50
B02BA	Vitamin K				
	Estonia	0.01	0.01	0.01	-24
	Latvia	0.01	0.01	0.01	-1
	Lithuania	0.02	-	-	
B02BA01	phytomenadione				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	0.01	0.01	0.01	-1
	Lithuania	0.02	-	-	
B02BA02	menadione				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
B02BX	Other systemic hemostatics				
	Estonia	0.01	0.01	0.01	18
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	0.01	50
B02BX04	romiplostim				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	5
	Lithuania	-	-	-	
B02BX05	eltrombopag				
	Estonia	0.01	0.01	0.01	23
	Latvia	<0.01	-	-	
	Lithuania	0.01	0.01	0.01	50
B03	ANTIANEMIC PREPARATIONS				
	Estonia	19.99	21.59	23.21	7
	Latvia	6.40	6.51	6.96	7
	Lithuania	8.76	9.72	9.82	1
B03A	IRON PREPARATIONS				
	Estonia	3.33	3.72	3.98	7
	Latvia	2.99	3.07	3.22	5
	Lithuania	4.17	4.66	4.54	-3

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
B03AA	Iron bivalent, oral preparations				
	Estonia	2.36	2.52	2.57	2
	Latvia	-	-	-	
	Lithuania	2.38	2.44	2.58	6
B03AA05	ferrous chloride				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.01	0.01	-	
B03AA07	ferrous sulfate				
	Estonia	2.36	2.52	2.57	2
	Latvia	-	-	-	
	Lithuania	2.37	2.43	2.58	6
B03AB	Iron trivalent, oral preparations				
	Estonia	-	-	-	
	Latvia	2.92	2.99	3.13	5
	Lithuania	0.27	0.25	0.25	2
B03AB05	ferric oxide polymaltose complexes				
	Estonia	-	-	-	
	Latvia	2.92	2.99	3.13	5
	Lithuania	0.27	0.25	0.25	2
B03AC	Iron, parenteral preparations				
	Estonia	0.05	0.05	0.07	20
	Latvia	0.08	0.09	0.09	7
	Lithuania	0.19	0.39	-	
B03AD	Iron in combination with folic acid				
	Estonia	0.92	1.15	1.34	17
	Latvia	-	-	-	
	Lithuania	0.19	0.39	0.48	24
B03AD02	ferrous fumarate				
	Estonia	0.92	1.15	1.34	17
	Latvia	-	-	-	
	Lithuania	0.19	0.39	0.48	24
B03AE	Iron in other combinations				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	1.14	1.21	1.23	2
B03AE01	iron, vitamin B12 and folic acid				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	1.14	1.21	1.23	2
B03B	VITAMIN B12 AND FOLIC ACID				
	Estonia	16.05	17.17	18.44	7
	Latvia	2.52	2.46	2.84	15
	Lithuania	3.81	4.28	4.50	5
B03BA	Vitamin B12 (cyanocobalamin and analogues)				
	Estonia	6.56	6.55	6.61	1
	Latvia	2.52	2.46	2.84	15
	Lithuania	3.81	4.28	4.50	5
B03BA01	cyanocobalamin				
	Estonia	6.53	6.53	6.60	1
	Latvia	2.52	2.46	2.84	15
	Lithuania	3.81	4.28	4.50	5

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
B03BA03	hydroxocobalamin				
	Estonia	0.03	0.02	0.01	-46
	Latvia	-	-	-	
	Lithuania	-	-	-	
B03BB	Folic acid and derivatives				
	Estonia	9.49	10.61	11.82	11
	Latvia	-	-	-	
	Lithuania	-	-	-	
B03BB01	folic acid				
	Estonia	9.49	10.61	11.82	11
	Latvia	-	-	-	
	Lithuania	-	-	-	
B03X	OTHER ANTIANEMIC PREPARATIONS				
	Estonia	0.61	0.71	0.79	12
	Latvia	0.89	0.98	0.90	-8
	Lithuania	0.78	0.77	0.78	1
B03XA	Other antianemic preparations				
	Estonia	0.61	0.71	0.79	12
	Latvia	0.89	0.98	0.90	-8
	Lithuania	0.78	0.77	0.78	1
B03XA01	erythropoietin				
	Estonia	0.11	0.13	0.14	5
	Latvia	0.06	0.11	0.11	
	Lithuania	0.23	0.23	0.26	12
B03XA02	darbepoetin alfa				
	Estonia	0.41	0.48	0.54	14
	Latvia	0.51	0.54	0.48	-11
	Lithuania	0.55	0.54	0.52	-4
B03XA03	methoxy polyethylene glycol-epoetin beta				
	Estonia	0.10	0.10	0.11	13
	Latvia	0.32	0.33	0.31	-6
	Lithuania	-	-	-	
B06	OTHER HEMATOLOGICAL AGENTS				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
B06A	OTHER HEMATOLOGICAL AGENTS				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
B06AC	Drugs used in hereditary angioedema				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
B06AC02	icatibant				
	Estonia	-	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
B06AC04	conestat alfa				
	Estonia	-	-	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	

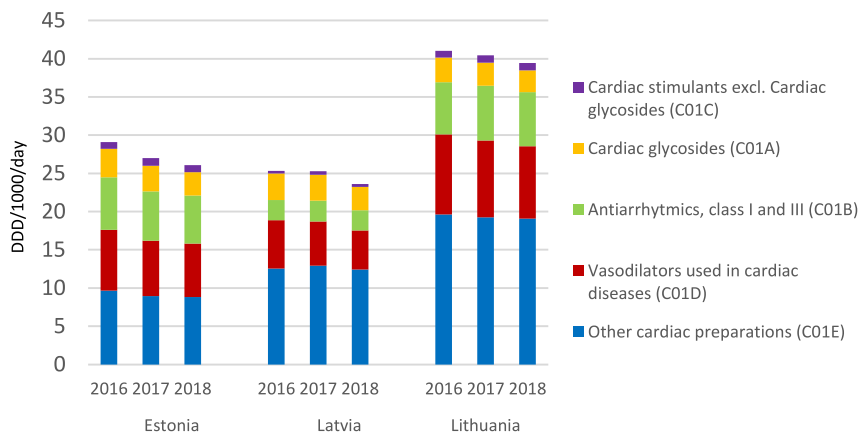
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C	CARDIOVASCULAR SYSTEM				
	Estonia	411.61	419.21	431.20	3
	Latvia	377.30	401.80	401.94	
	Lithuania	439.54	454.74	457.06	1
C01	CARDIAC THERAPY				
	Estonia	29.10	27.00	26.09	-3
	Latvia	25.32	25.29	23.62	-7
	Lithuania	41.05	40.43	39.42	-2
C01A	CARDIAC GLYCOSIDES				
	Estonia	3.75	3.35	3.07	-8
	Latvia	3.48	3.38	3.08	-9
	Lithuania	3.22	2.98	2.84	-5
C01AA	Digitalis glycosides				
	Estonia	3.75	3.35	3.07	-8
	Latvia	3.48	3.38	3.08	-9
	Lithuania	3.22	2.98	2.84	-5
C01AA05	digoxin				
	Estonia	3.75	3.34	3.07	-8
	Latvia	3.48	3.38	3.08	-9
	Lithuania	3.22	2.98	2.84	-5
C01AA06	lanatoside C				
	Estonia	<0.01	<0.01	<0.01	-31
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01B	ANTIARRHYTHMICS, CLASS I AND III				
	Estonia	6.85	6.45	6.28	-3
	Latvia	2.63	2.73	2.63	-4
	Lithuania	6.81	7.16	7.11	-1
C01BA	Antiarrhythmics, class Ia				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01BA01	quinidine				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01BB	Antiarrhythmics, class Ib				
	Estonia	0.16	0.05	0.03	-51
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01BB02	mexiletine				
	Estonia	-	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01BB80	Aethacizin				
	Estonia	0.16	0.05	0.03	-52
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01BC	Antiarrhythmics, class Ic				
	Estonia	4.00	3.93	3.97	1
	Latvia	0.93	1.04	1.11	6
	Lithuania	2.81	3.08	3.20	4

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C01BC03	propafenone				
	Estonia	3.90	3.82	3.82	
	Latvia	0.93	1.04	1.11	6
	Lithuania	2.81	3.08	3.20	4
C01BC04	flecainide				
	Estonia	0.10	0.11	0.15	38
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01BD	Antiarrhythmics, class III				
	Estonia	2.70	2.46	2.29	-7
	Latvia	1.70	1.68	1.52	-10
	Lithuania	4.00	4.08	3.91	-4
C01BD01	amiodarone				
	Estonia	2.68	2.45	2.27	-7
	Latvia	1.70	1.68	1.52	-10
	Lithuania	3.99	4.07	3.90	-4
C01BD07	dronedarone				
	Estonia	0.02	0.02	0.02	18
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	0.01	29
C01C	CARDIAC STIMULANTS EXCL. CARDIAC GLYCOSIDES				
	Estonia	0.87	1.00	0.92	-8
	Latvia	0.34	0.48	0.39	-20
	Lithuania	0.92	0.97	0.94	-3
C01CA	Adrenergic and dopaminergic agents				
	Estonia	0.87	1.00	0.92	-8
	Latvia	0.34	0.48	0.39	-20
	Lithuania	0.92	0.97	0.94	-3
C01CA01	etilefrine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01CA03	norepinephrine				
	Estonia	0.11	0.10	0.10	-6
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01CA04	dopamine				
	Estonia	0.01	0.01	0.01	9
	Latvia	-	-	-	
	Lithuania	0.02	0.02	0.02	13
C01CA06	phenylephrine				
	Estonia	0.12	0.14	0.11	-18
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01CA07	dobutamine				
	Estonia	<0.01	0.01	0.01	26
	Latvia	<0.01	<0.01	-	
	Lithuania	<0.01	<0.01	<0.01	
C01CA17	midodrine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01CA24	epinephrine				
	Estonia	0.58	0.71	0.66	-7
	Latvia	0.34	0.48	0.39	-19
	Lithuania	0.90	0.95	0.92	-3

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C01CA26	ephedrine				
	Estonia	0.04	0.04	0.04	8
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01CE	Phosphodiesterase inhibitors				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01CE02	milrinone				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01CX	Other cardiac stimulants				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01CX08	levosimendan				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01D	VASODILATORS USED IN CARDIAC DISEASES				
	Estonia	7.96	7.26	6.99	-4
	Latvia	6.32	5.80	5.12	-12
	Lithuania	10.46	10.08	9.44	-6
C01DA	Organic nitrates				
	Estonia	7.95	7.26	6.99	-4
	Latvia	6.32	5.80	5.12	-12
	Lithuania	10.46	10.08	9.44	-6
C01DA02	glyceryl trinitrate				
	Estonia	0.52	0.48	0.44	-9
	Latvia	0.65	0.56	0.56	1
	Lithuania	2.99	2.92	3.02	3
C01DA05	pentaerithrityl tetranitrate				
	Estonia	<0.01	-	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C01DA08	isosorbide dinitrate				
	Estonia	0.46	0.42	0.40	-6
	Latvia	0.27	0.24	0.20	-17
	Lithuania	1.22	1.23	1.09	-11
C01DA14	isosorbide mononitrate				
	Estonia	6.97	6.36	6.15	-3
	Latvia	5.40	5.00	4.37	-13
	Lithuania	6.24	5.93	5.33	-10
C01E	OTHER CARDIAC PREPARATIONS				
	Estonia	9.67	8.94	8.82	-1
	Latvia	12.55	12.91	12.40	-4
	Lithuania	19.64	19.24	19.09	-1
C01EA	Prostaglandins				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C01EA01	alprostadil				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
C01EB	Other cardiac preparations				
	Estonia	9.67	8.94	8.82	-1
	Latvia	12.55	12.91	12.40	-4
	Lithuania	19.64	19.24	19.09	-1
C01EB10	adenosine				
	Estonia	0.01	0.01	0.02	24
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
C01EB15	trimetazidine				
	Estonia	9.37	8.56	8.45	-1
	Latvia	10.34	10.17	9.64	-5
	Lithuania	16.58	15.79	15.17	-4
C01EB16	ibuprofen				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
C01EB17	ivabradine				
	Estonia	0.26	0.34	0.32	-5
	Latvia	2.08	2.26	2.11	-7
	Lithuania	2.56	2.52	2.41	-4
C01EB18	ranolazine				
	Estonia	0.02	0.02	0.03	9
	Latvia	0.13	0.48	0.65	36
	Lithuania	0.50	0.93	1.51	63
C01EB21	regadenoson				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C02	ANTIHYPERTENSIVES				
	Estonia	3.91	3.89	3.91	1
	Latvia	19.22	20.51	20.75	1
	Lithuania	26.60	26.08	23.27	-11

Consumption of drugs for cardiac therapy (C01)



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C02A	ANTIADRENERGIC AGENTS, CENTRALLY ACTING				
	Estonia	2.39	2.43	2.43	
	Latvia	16.17	17.49	17.90	2
	Lithuania	18.89	18.66	16.41	-12
C02AB	Methyldopa				
	Estonia	-	-	<0.01	
	Latvia	0.10	0.09	0.10	5
	Lithuania	0.06	0.06	0.05	-16
C02AB01	methyldopa (levorotatory)				
	Estonia	-	-	<0.01	
	Latvia	0.10	0.09	0.10	5
	Lithuania	0.06	0.06	0.05	-16
C02AC	Imidazoline receptor agonists				
	Estonia	2.39	2.43	2.43	
	Latvia	16.07	17.40	17.81	2
	Lithuania	18.82	18.59	16.36	-12
C02AC01	clonidine				
	Estonia	0.06	0.05	0.04	-11
	Latvia	1.15	1.10	0.94	-14
	Lithuania	-	-	-	
C02AC05	moxonidine				
	Estonia	2.34	2.38	2.39	
	Latvia	6.83	7.83	8.52	9
	Lithuania	18.82	18.59	16.36	-12
C02AC06	rilmenidine				
	Estonia	-	-	-	
	Latvia	8.09	8.47	8.34	-2
	Lithuania	-	-	-	
C02C	ANTIADRENERGIC AGENTS, PERIPHERALLY ACTING				
	Estonia	1.50	1.44	1.45	1
	Latvia	2.26	2.33	2.26	-3
	Lithuania	7.70	7.41	6.83	-8
C02CA	Alpha-adrenoreceptor antagonists				
	Estonia	1.50	1.44	1.45	1
	Latvia	2.26	2.33	2.26	-3
	Lithuania	7.70	7.41	6.83	-8
C02CA01	prazosin				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C02CA04	doxazosin				
	Estonia	1.50	1.44	1.45	1
	Latvia	2.26	2.33	2.26	-3
	Lithuania	7.70	7.41	6.83	-8
C02D	ARTERIOLAR SMOOTH MUSCLE, AGENTS ACTING ON				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	<0.01	<0.01	<0.01	
C02DD	Nitroferricyanide derivatives				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	<0.01	<0.01	<0.01	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C02DD01	nitroprusside				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	<0.01	<0.01	<0.01	
C02K	OTHER ANTIHYPERTENSIVES				
	Estonia	0.02	0.02	0.02	10
	Latvia	0.02	0.03	0.03	21
	Lithuania	0.02	0.02	0.03	40
C02KX	Antihypertensives for pulmonary arterial hypertension				
	Estonia	0.02	0.02	0.02	10
	Latvia	0.02	0.03	0.03	21
	Lithuania	0.02	0.02	0.03	40
C02KX01	bosentan				
	Estonia	0.01	0.01	0.01	-23
	Latvia	0.02	0.02	0.02	14
	Lithuania	0.01	0.01	0.01	27
C02KX02	ambrisentan				
	Estonia	0.01	0.01	0.01	92
	Latvia	0.01	0.01	0.01	35
	Lithuania	0.01	0.01	0.01	22
C02KX05	riociguat				
	Estonia	<0.01	<0.01	0.01	16
	Latvia	0	<0.01	<0.01	
	Lithuania	-	-	<0.01	
C02L	ANTIHYPERTENSIVES AND DIURETICS IN COMBINATION				
	Estonia	-	-	-	
	Latvia	0.77	0.66	0.56	-15
	Lithuania	-	-	-	
C02LA	Rauwolfia alkaloids and diuretics in combination				
	Estonia	-	-	-	
	Latvia	0.77	0.66	0.56	-15
	Lithuania	-	-	-	
C02LA51	reserpine and diuretics, combinations with other drugs				
	Estonia	-	-	-	
	Latvia	0.77	0.66	0.56	-15
	Lithuania	-	-	-	
C03	DIURETICS				
	Estonia	24.95	24.93	26.63	7
	Latvia	18.57	18.50	18.23	-1
	Lithuania	21.75	22.59	23.92	6
C03A	LOW-CEILING DIURETICS, THIAZIDES				
	Estonia	2.18	1.93	1.73	-10
	Latvia	0.46	0.43	0.39	-9
	Lithuania	0.15	0.14	0.15	13
C03AA	Thiazides, plain				
	Estonia	2.18	1.93	1.73	-10
	Latvia	0.46	0.43	0.39	-9
	Lithuania	0.15	0.14	0.15	13
C03AA03	hydrochlorothiazide				
	Estonia	2.18	1.93	1.73	-10
	Latvia	0.46	0.43	0.39	-9
	Lithuania	0.15	0.14	0.15	13

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C03B	LOW-CEILING DIURETICS, EXCL. THIAZIDES				
	Estonia	2.52	2.46	2.43	-1
	Latvia	3.83	3.68	3.42	-7
	Lithuania	3.45	3.00	2.88	-4
C03BA	Sulfonamides, plain				
	Estonia	2.52	2.46	2.43	-1
	Latvia	3.83	3.68	3.42	-7
	Lithuania	3.45	3.00	2.88	-4
C03BA08	metolazone				
	Estonia	<0.01	<0.01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C03BA11	indapamide				
	Estonia	2.52	2.46	2.43	-1
	Latvia	3.83	3.68	3.42	-7
	Lithuania	3.45	3.00	2.88	-4
C03C	HIGH-CEILING DIURETICS				
	Estonia	17.08	17.53	19.27	10
	Latvia	8.89	8.86	8.97	1
	Lithuania	13.33	14.31	15.47	8
C03CA	Sulfonamides, plain				
	Estonia	17.08	17.53	19.27	10
	Latvia	8.89	8.86	8.97	1
	Lithuania	13.33	14.31	15.47	8
C03CA01	furosemide				
	Estonia	5.07	4.70	4.49	-4
	Latvia	2.71	2.62	2.42	-7
	Lithuania	2.79	2.73	2.59	-5
C03CA04	torasemide				
	Estonia	12.01	12.84	14.79	15
	Latvia	6.18	6.24	6.55	5
	Lithuania	10.54	11.57	12.88	11
C03D	POTASSIUM-SPARING AGENTS				
	Estonia	3.16	2.99	3.18	6
	Latvia	5.38	5.53	5.44	-2
	Lithuania	4.82	5.15	5.42	5
C03DA	Aldosterone antagonists				
	Estonia	3.16	2.99	3.18	6
	Latvia	5.38	5.53	5.44	-2
	Lithuania	4.82	5.15	5.42	5
C03DA01	spironolactone				
	Estonia	3.14	2.98	3.18	6
	Latvia	5.35	5.47	5.38	-2
	Lithuania	4.82	5.15	5.42	5
C03DA04	eplerenone				
	Estonia	0.01	0.01	<0.01	-59
	Latvia	0.04	0.05	0.06	19
	Lithuania	-	-	-	
C03E	DIURETICS AND POTASSIUM-SPARING AGENTS IN COMBINATION				
	Estonia	0.02	0.01	0.02	15
	Latvia	-	-	-	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C03EA	Low-ceiling diuretics and potassium-sparing agents				
	Estonia	0.02	0.01	0.02	15
	Latvia	-	-	-	
	Lithuania	-	-	-	
C03EA01	hydrochlorothiazide and potassium-sparing agents				
	Estonia	0.02	0.01	0.02	15
	Latvia	-	-	-	
	Lithuania	-	-	-	
C03EB	High-ceiling diuretics and potassium-sparing agents				
	Estonia	-	<0.01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C03EB01	furosemide and potassium-sparing agents				
	Estonia	-	<0.01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C04	PERIPHERAL VASODILATORS				
	Estonia	2.78	2.80	2.85	2
	Latvia	3.72	3.81	3.93	3
	Lithuania	4.48	4.58	4.18	-9
C04A	PERIPHERAL VASODILATORS				
	Estonia	2.78	2.80	2.85	2
	Latvia	3.72	3.81	3.93	3
	Lithuania	4.48	4.58	4.18	-9
C04AC	Nicotinic acid and derivatives				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C04AC01	nicotinic acid				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C04AD	Purine derivatives				
	Estonia	2.12	2.04	1.97	-3
	Latvia	1.18	1.14	1.17	2
	Lithuania	4.48	4.58	4.18	-9
C04AD02	xantinol nicotinate				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	0.03	0.02	0.02	-89
C04AD03	pentoxifylline				
	Estonia	2.12	2.04	1.97	-3
	Latvia	1.18	1.14	1.17	2
	Lithuania	4.45	4.42	4.16	-6
C04AX	Other peripheral vasodilators				
	Estonia	0.65	0.76	0.88	16
	Latvia	2.54	2.66	2.77	4
	Lithuania	-	-	-	
C04AX21	naftidrofuryl				
	Estonia	0.65	0.76	0.88	16
	Latvia	2.54	2.66	2.77	4
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C07	BETA BLOCKING AGENTS				
	Estonia	48.99	51.55	54.55	6
	Latvia	54.81	57.77	57.74	
	Lithuania	73.61	75.05	74.41	-1
C07A	BETA BLOCKING AGENTS				
	Estonia	48.99	51.55	54.55	6
	Latvia	49.71	52.05	51.88	
	Lithuania	68.95	70.09	69.25	-1
C07AA	Beta blocking agents, non-selective				
	Estonia	1.97	1.80	1.80	
	Latvia	0.81	0.96	1.07	12
	Lithuania	0.26	0.30	0.21	-30
C07AA05	propranolol				
	Estonia	0.55	0.53	0.56	4
	Latvia	0.33	0.33	0.31	-7
	Lithuania	0.26	0.30	0.21	-30
C07AA07	sotalol				
	Estonia	1.42	1.27	1.24	-2
	Latvia	0.48	0.63	0.77	22
	Lithuania	-	-	-	
C07AB	Beta blocking agents, selective				
	Estonia	46.34	49.07	52.05	6
	Latvia	48.56	50.79	50.54	
	Lithuania	67.19	68.38	67.81	-1
C07AB02	metoprolol				
	Estonia	23.65	24.83	26.21	6
	Latvia	12.78	12.35	11.38	-8
	Lithuania	21.11	20.13	19.01	-6
C07AB03	atenolol				
	Estonia	0.79	0.71	0.60	-16
	Latvia	0.46	0.41	0.36	-13
	Lithuania	0.74	0.75	0.65	-13
C07AB05	betaxolol				
	Estonia	-	-	-	
	Latvia	3.46	4.15	4.66	12
	Lithuania	6.00	5.75	5.46	-5
C07AB07	bisoprolol				
	Estonia	1.78	2.22	2.77	25
	Latvia	19.03	19.59	19.21	-2
	Lithuania	0.25	0.76	2.14	181
C07AB12	nebivolol				
	Estonia	20.12	21.31	22.47	5
	Latvia	12.82	14.29	14.93	4
	Lithuania	39.10	40.98	40.55	-1
C07AG	Alpha and beta blocking agents				
	Estonia	0.67	0.67	0.70	3
	Latvia	0.34	0.30	0.26	-14
	Lithuania	1.50	1.41	1.24	-12
C07AG01	labetalol				
	Estonia	0.07	0.08	0.09	11
	Latvia	-	-	-	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C07AG02	carvedilol				
	Estonia	0.61	0.59	0.60	2
	Latvia	0.34	0.30	0.26	-14
	Lithuania	1.50	1.41	1.24	-12
C07B	BETA BLOCKING AGENTS AND THIAZIDES				
	Estonia	<0.01	<0.01	-	
	Latvia	3.42	3.67	3.71	1
	Lithuania	4.66	4.96	5.16	4
C07BB	Beta blocking agents, selective, and thiazides				
	Estonia	<0.01	<0.01	-	
	Latvia	3.42	3.67	3.71	1
	Lithuania	4.66	4.96	5.16	4
C07BB07	bisoprolol and thiazides				
	Estonia	<0.01	<0.01	-	
	Latvia	1.50	1.50	1.43	-5
	Lithuania	-	-	-	
C07BB12	nebivolol and thiazides				
	Estonia	-	-	-	
	Latvia	1.92	2.16	2.28	5
	Lithuania	4.66	4.96	5.16	4
C07F	BETA BLOCKING AGENTS AND OTHER ANTIHYPERTENSIVES				
	Estonia	-	-	-	
	Latvia	1.68	2.05	2.15	5
	Lithuania	-	-	-	
C07FB	Beta blocking agents, selective, and other antihypertensives				
	Estonia	-	-	-	
	Latvia	1.34	1.44	1.43	-1
	Lithuania	-	-	-	
C07FB07	bisoprolol and other antihypertensives				
	Estonia	-	-	-	
	Latvia	1.34	1.44	1.43	-1
	Lithuania	-	-	-	
C07FX	Beta blocking agents, other combinations				
	Estonia	-	-	-	
	Latvia	0.34	0.61	0.72	18
	Lithuania	-	-	-	
C07FX05	metoprolol and ivabradine				
	Estonia	-	-	-	
	Latvia	0.34	0.61	0.72	18
	Lithuania	-	-	-	
C08	CALCIUM CHANNEL BLOCKERS				
	Estonia	54.50	52.03	49.81	-4
	Latvia	34.06	33.59	31.73	-6
	Lithuania	28.58	27.60	26.78	-3
C08C	SELECTIVE CALCIUM CHANNEL BLOCKERS WITH MAINLY VASCULAR EFFECTS				
	Estonia	52.38	50.15	48.10	-4
	Latvia	33.02	32.64	30.84	-6
	Lithuania	25.20	24.52	23.95	-2
C08CA	Dihydropyridine derivatives				
	Estonia	52.38	50.15	48.10	-4
	Latvia	33.02	32.64	30.84	-6
	Lithuania	25.20	24.52	23.95	-2

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C08CA01	amlodipine				
	Estonia	28.80	27.95	26.93	-4
	Latvia	16.02	15.61	14.56	-7
	Lithuania	7.45	7.20	7.35	2
C08CA02	felodipine				
	Estonia	4.05	3.54	3.16	-11
	Latvia	0.89	0.76	0.64	-16
	Lithuania	0.23	0.20	0.17	-15
C08CA05	nifedipine				
	Estonia	1.59	1.43	1.19	-16
	Latvia	1.07	0.92	0.79	-14
	Lithuania	0.16	0.16	0.17	7
C08CA06	nimodipine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	0.01	0.01	0.01	7
	Lithuania	-	-	-	
C08CA08	nitrendipine				
	Estonia	5.60	5.24	5.03	-4
	Latvia	2.76	2.75	2.59	-6
	Lithuania	0.58	0.51	0.37	-26
C08CA09	lacidipine				
	Estonia	4.63	4.16	3.84	-8
	Latvia	3.27	3.15	2.85	-10
	Lithuania	3.65	3.30	3.08	-7
C08CA13	lercanidipine				
	Estonia	7.72	7.83	7.94	1
	Latvia	8.99	9.43	9.40	
	Lithuania	13.13	13.15	12.81	-3
C08D	SELECTIVE CALCIUM CHANNEL BLOCKERS WITH DIRECT CARDIAC EFFECTS				
	Estonia	2.12	1.88	1.71	-9
	Latvia	0.71	0.63	0.55	-12
	Lithuania	3.38	3.08	2.83	-8
C08DA	Phenylalkylamine derivatives				
	Estonia	2.02	1.80	1.62	-10
	Latvia	0.52	0.46	0.41	-12
	Lithuania	1.88	1.80	1.70	-5
C08DA01	verapamil				
	Estonia	2.02	1.80	1.62	-10
	Latvia	0.36	0.32	0.29	-9
	Lithuania	1.88	1.80	1.70	-5
C08DA51	verapamil, combinations				
	Estonia	-	-	-	
	Latvia	0.15	0.14	0.12	-17
	Lithuania	-	-	-	
C08DB	Benzothiazepine derivatives				
	Estonia	0.09	0.08	0.09	6
	Latvia	0.19	0.16	0.14	-14
	Lithuania	1.51	1.28	1.12	-12
C08DB01	diltiazem				
	Estonia	0.09	0.08	0.09	6
	Latvia	0.19	0.16	0.14	-14
	Lithuania	1.51	1.28	1.12	-12

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C08G	CALCIUM CHANNEL BLOCKERS AND DIURETICS				
	Estonia	-	-	-	
	Latvia	0.33	0.32	0.34	4
	Lithuania	-	-	-	
C08GA	Calcium channel blockers and diuretics				
	Estonia	-	-	-	
	Latvia	0.33	0.32	0.34	4
	Lithuania	-	-	-	
C08GA02	amlodipine and diuretics				
	Estonia	-	-	-	
	Latvia	0.33	0.32	0.34	4
	Lithuania	-	-	-	
C09	AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM				
	Estonia	194.04	198.81	202.79	2
	Latvia	149.82	157.78	155.81	-2
	Lithuania	213.85	220.48	218.59	-1
C09A	ACE INHIBITORS, PLAIN				
	Estonia	81.18	79.70	78.25	-2
	Latvia	62.76	61.78	57.47	-7
	Lithuania	98.74	97.44	92.23	-5
C09AA	ACE inhibitors, plain				
	Estonia	81.18	79.70	78.25	-2
	Latvia	62.76	61.78	57.47	-7
	Lithuania	98.74	97.44	92.23	-5
C09AA01	captopril				
	Estonia	0.07	0.05	0.05	-7
	Latvia	0.95	0.95	0.86	-9
	Lithuania	10.88	11.49	10.34	-10
C09AA02	enalapril				
	Estonia	12.59	11.46	9.73	-15
	Latvia	14.85	13.51	11.52	-15
	Lithuania	6.74	6.18	4.95	-20
C09AA03	lisinopril				
	Estonia	-	<0.01	<0.01	17
	Latvia	0.95	0.91	0.90	-1
	Lithuania	2.23	2.06	1.89	-8
C09AA04	perindopril				
	Estonia	3.11	4.36	5.78	32
	Latvia	19.35	18.90	17.66	-7
	Lithuania	29.07	29.41	28.62	-3
C09AA05	ramipril				
	Estonia	57.41	56.63	56.41	
	Latvia	24.23	25.39	24.76	-2
	Lithuania	28.27	27.08	25.58	-6
C09AA06	quinapril				
	Estonia	0.01	-	-	
	Latvia	0.84	0.72	0.59	-18
	Lithuania	4.34	3.71	3.00	-19
C09AA09	fosinopril				
	Estonia	7.79	7.00	6.12	-13
	Latvia	1.41	1.24	1.04	-16
	Lithuania	4.65	4.41	3.95	-10

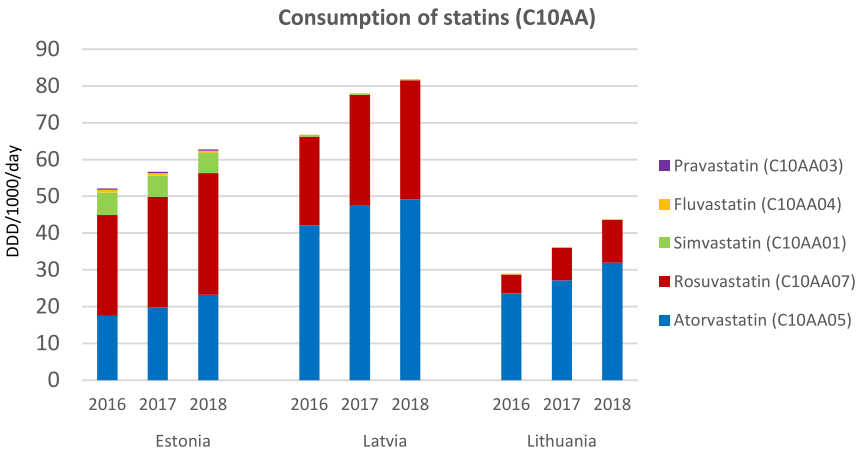
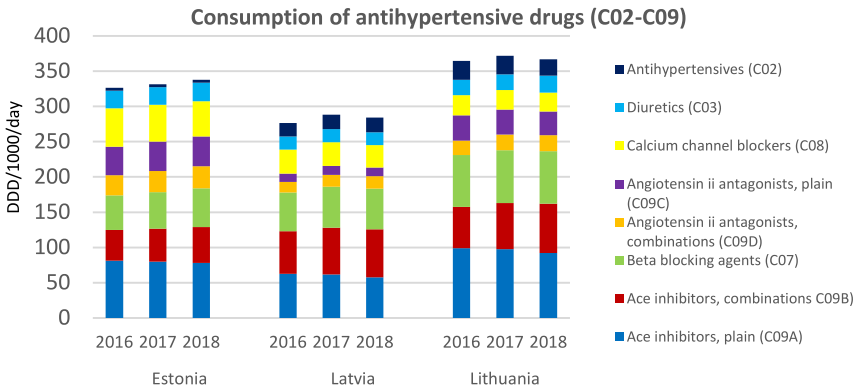
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C09AA10	trandolapril				
	Estonia	0.19	0.18	0.16	-15
	Latvia	0.18	0.16	0.13	-14
	Lithuania	1.62	1.51	1.48	-2
C09AA15	zofenopril				
	Estonia	-	-	-	
	Latvia	<0.01	-	-	
	Lithuania	10.94	11.58	12.44	7
C09B	ACE INHIBITORS, COMBINATIONS				
	Estonia	43.74	47.14	50.85	8
	Latvia	60.47	66.45	68.33	3
	Lithuania	58.77	65.54	69.83	7
C09BA	ACE inhibitors and diuretics				
	Estonia	27.82	28.56	28.81	1
	Latvia	34.83	35.49	33.62	-5
	Lithuania	30.05	30.47	30.32	
C09BA02	enalapril and diuretics				
	Estonia	9.79	8.73	7.68	-12
	Latvia	4.43	3.99	3.41	-15
	Lithuania	0.37	0.34	0.27	-21
C09BA04	perindopril and diuretics				
	Estonia	13.22	15.12	16.90	12
	Latvia	24.20	25.67	25.26	-2
	Lithuania	23.47	24.03	24.11	
C09BA05	ramipril and diuretics				
	Estonia	3.04	3.05	2.75	-10
	Latvia	1.39	1.28	1.13	-12
	Lithuania	0.84	0.73	0.71	-3
C09BA06	quinapril and diuretics				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	3.94	3.75	3.14	-16
	Lithuania	2.44	2.12	1.73	-18
C09BA09	fosinopril and diuretics				
	Estonia	1.76	1.65	1.48	-10
	Latvia	0.86	0.80	0.68	-15
	Lithuania	1.26	1.14	1.04	-8
C09BA15	zofenopril and diuretics				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	1.67	2.12	2.47	16
C09BB	ACE inhibitors and calcium channel blockers				
	Estonia	9.89	10.41	11.45	10
	Latvia	17.08	17.98	18.40	2
	Lithuania	19.48	19.26	18.48	-4
C09BB02	enalapril and lercanidipine				
	Estonia	-	-	-	
	Latvia	0.31	0.32	0.28	-11
	Lithuania	-	-	-	
C09BB03	lisinopril and amlodipine				
	Estonia	2.22	2.07	1.97	-5
	Latvia	1.30	1.27	1.16	-9
	Lithuania	2.08	2.10	1.95	-7

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C09BB04	perindopril and amlodipine				
	Estonia	5.04	5.78	7.01	21
	Latvia	14.09	15.02	15.52	3
	Lithuania	13.93	13.61	13.33	-2
C09BB07	ramipril and amlodipine				
	Estonia	1.71	1.74	1.66	-4
	Latvia	1.37	1.37	1.44	5
	Lithuania	0.92	0.94	0.87	-8
C09BB10	trandolapril and verapamil				
	Estonia	0.92	0.81	0.81	-1
	Latvia	-	-	-	
	Lithuania	2.56	2.61	2.33	-11
C09BX	ACE inhibitors, other combinations				
	Estonia	6.03	8.18	10.59	29
	Latvia	8.56	12.99	16.31	26
	Lithuania	9.23	15.81	21.03	33
C09BX01	perindopril, amlodipine and indapamide				
	Estonia	6.03	8.18	10.59	29
	Latvia	8.19	11.32	13.54	20
	Lithuania	8.54	11.39	13.37	17
C09BX02	perindopril and bisoprolol				
	Estonia	-	-	-	
	Latvia	0.37	1.67	2.77	66
	Lithuania	0.69	4.42	7.66	73
C09C	ANGIOTENSIN II ANTAGONISTS, PLAIN				
	Estonia	40.77	41.93	42.31	1
	Latvia	11.84	12.47	12.29	-1
	Lithuania	36.14	35.56	33.95	-5
C09CA	Angiotensin II antagonists, plain				
	Estonia	40.77	41.93	42.31	1
	Latvia	11.84	12.47	12.29	-1
	Lithuania	36.14	35.56	33.95	-5
C09CA01	losartan				
	Estonia	4.74	4.45	3.87	-13
	Latvia	2.07	2.14	2.08	-3
	Lithuania	4.85	4.35	3.86	-11
C09CA02	eprosartan				
	Estonia	0.01	0.01	<0.01	-13
	Latvia	0.01	0.01	<0.01	-35
	Lithuania	0.02	0.01	0.02	36
C09CA03	valsartan				
	Estonia	4.84	4.43	4.32	-2
	Latvia	0.36	0.39	0.42	7
	Lithuania	19.71	20.08	17.92	-11
C09CA04	irbesartan				
	Estonia	-	-	-	
	Latvia	0.16	0.14	0.12	-13
	Lithuania	0.14	0.11	0.10	-12
C09CA06	candesartan				
	Estonia	7.99	9.52	9.86	4
	Latvia	1.72	1.83	1.83	
	Lithuania	0.4	0.37	1.67	357

ATC code	ATC group/ INN	DDD/1000/day			Relative
		2016	2017	2018	
C09CA07	telmisartan				
	Estonia	20.73	20.90	21.46	3
	Latvia	5.48	5.63	5.52	-2
	Lithuania	10.01	9.55	9.40	-2
C09CA08	olmesartan medoxomil				
	Estonia	2.46	2.62	2.80	7
	Latvia	2.04	2.33	2.32	-1
	Lithuania	1.00	1.10	0.99	-10
C09D	ANGIOTENSIN II ANTAGONISTS, COMBINATIONS				
	Estonia	28.35	30.04	31.38	4
	Latvia	14.76	17.08	17.72	
	Lithuania	20.21	21.94	22.58	3
C09DA	Angiotensin II antagonists and diuretics				
	Estonia	16.15	16.17	15.95	-1
	Latvia	10.93	12.04	12.00	
	Lithuania	14.36	15.14	15.08	
C09DA01	losartan and diuretics				
	Estonia	2.36	2.30	2.06	-10
	Latvia	1.68	1.73	1.71	-1
	Lithuania	1.28	1.20	1.13	-6
C09DA03	valsartan and diuretics				
	Estonia	1.95	1.87	1.87	
	Latvia	1.43	1.54	1.46	-6
	Lithuania	8.44	8.34	7.34	-12
C09DA04	irbesartan and diuretics				
	Estonia	-	-	-	
	Latvia	0.07	0.07	0.06	-6
	Lithuania	-	-	-	
C09DA06	candesartan and diuretics				
	Estonia	1.80	2.12	2.14	1
	Latvia	0.45	0.50	0.54	7
	Lithuania	1.71	2.63	3.72	42
C09DA07	telmisartan and diuretics				
	Estonia	9.59	9.36	9.36	
	Latvia	5.50	6.21	6.26	1
	Lithuania	2.39	2.35	2.40	2
C09DA08	olmesartan medoxomil and diuretics				
	Estonia	0.45	0.52	0.52	
	Latvia	1.80	1.99	1.97	-1
	Lithuania	0.54	0.62	0.48	-22
C09DB	Angiotensin II antagonists and calcium channel blockers				
	Estonia	10.39	11.20	11.94	7
	Latvia	2.43	3.41	4.03	18
	Lithuania	4.74	5.43	5.54	2
C09DB01	valsartan and amlodipine				
	Estonia	<0.01	0.09	0.23	161
	Latvia	0.44	0.51	0.46	-9
	Lithuania	1.86	2.59	2.90	12
C09DB02	olmesartan medoxomil and amlodipine				
	Estonia	3.85	4.45	5.16	16
	Latvia	0.99	0.97	1.28	32
	Lithuania	0.93	0.96	0.78	-19

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C09DB04	telmisartan and amlodipine				
	Estonia	6.42	6.52	6.41	-2
	Latvia	0.38	0.88	1.30	48
	Lithuania	1.96	1.88	1.86	-1
C09DB06	losartan and amlodipine				
	Estonia	-	-	-	
	Latvia	0.39	0.40	0.17	-58
	Lithuania	-	-	-	
C09DB07	candesartan and amlodipine				
	Estonia	0.12	0.14	0.13	-6
	Latvia	0.22	0.65	0.81	24
	Lithuania	-	-	-	
C09DX	Angiotensin II antagonists, other combinations				
	Estonia	1.81	2.67	3.49	31
	Latvia	1.41	1.62	1.69	4
	Lithuania	1.11	1.38	1.97	43
C09DX01	valsartan, amlodipine and hydrochlorothiazide				
	Estonia	0.01	0.01	0.01	-20
	Latvia	0.97	1.00	0.87	-13
	Lithuania	0.32	0.43	0.59	37
C09DX03	olmesartan medoxomil, amlodipine and hydrochlorothiazide				
	Estonia	1.80	2.65	3.35	26
	Latvia	0.44	0.62	0.77	24
	Lithuania	0.79	0.93	1.26	36
C09DX04	valsartan and sacubitril				
	Estonia	<0.01	0.01	0.13	1140
	Latvia	<0.01	<0.01	0.06	2895
	Lithuania	-	0.02	0.12	417
C10	LIPID MODIFYING AGENTS				
	Estonia	53.36	58.21	64.58	11
	Latvia	71.77	84.56	90.13	7
	Lithuania	29.62	37.95	46.49	23
C10A	LIPID MODIFYING AGENTS, PLAIN				
	Estonia	52.88	57.51	63.73	11
	Latvia	68.14	79.68	83.63	5
	Lithuania	29.26	36.57	44.26	21
C10AA	HMG CoA reductase inhibitors				
	Estonia	52.15	56.66	62.76	11
	Latvia	66.70	78.05	81.89	5
	Lithuania	28.95	36.22	43.77	21
C10AA01	simvastatin				
	Estonia	6.13	5.73	5.49	-4
	Latvia	0.41	0.36	0.31	-15
	Lithuania	0.10	0.10	0.09	-9
C10AA03	pravastatin				
	Estonia	0.42	0.38	0.36	-5
	Latvia	-	-	-	
	Lithuania	-	-	-	
C10AA04	fluvastatin				
	Estonia	0.71	0.69	0.63	-10
	Latvia	0.05	0.05	0.05	-1
	Lithuania	0.13	0.13	0.14	8

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C10AA05	atorvastatin				
	Estonia	17.46	19.70	23.23	18
	Latvia	42.11	47.46	49.18	4
	Lithuania	23.53	27.14	31.94	18
C10AA07	rosuvastatin				
	Estonia	27.44	30.16	33.05	10
	Latvia	24.13	30.19	32.35	7
	Lithuania	5.20	8.86	11.61	31
C10AB	Fibrates				
	Estonia	0.48	0.56	0.62	10
	Latvia	0.92	1.01	1.07	6
	Lithuania	0.30	0.32	0.40	25
C10AB05	fenofibrate				
	Estonia	0.48	0.56	0.62	10
	Latvia	0.92	1.01	1.07	6
	Lithuania	0.30	0.32	0.40	25
C10AC	Bile acid sequestrants				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
C10AC01	colestyramine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
C10AX	Other lipid modifying agents				
	Estonia	0.24	0.28	0.35	23
	Latvia	0.53	0.62	0.67	9
	Lithuania	0.01	0.03	0.10	228
C10AX06	omega-3-triglycerides incl. other esters and acids				
	Estonia	-	-	-	
	Latvia	0.30	0.29	0.28	-5
	Lithuania	-	-	-	
C10AX09	ezetimibe				
	Estonia	0.24	0.28	0.35	23
	Latvia	0.22	0.32	0.39	21
	Lithuania	0.01	0.03	0.10	228
C10AX13	Evolocumab				
	Estonia	0	<0.01	<0.01	
	Latvia	-	<0.01	-	
	Lithuania	-	-	-	
C10B	LIPID MODIFYING AGENTS, COMBINATIONS				
	Estonia	0.48	0.70	0.86	23
	Latvia	3.63	4.88	6.50	33
	Lithuania	0.36	1.38	2.23	62
C10BA	HMG CoA reductase inhibitors in combination with other lipid modifying agents				
	Estonia	-	-	<0.01	
	Latvia	-	-	0.73	
	Lithuania	-	-	-	
C10BA06	rosuvastatin and ezetimibe				
	Estonia	-	-	<0.01	
	Latvia	-	-	0.73	
	Lithuania	-	-	-	
C10BX	HMG CoA reductase inhibitors, other combinations				
	Estonia	0.48	0.70	0.85	22
	Latvia	3.63	4.88	5.78	18
	Lithuania	0.36	1.38	2.23	62
C10BX03	atorvastatin and amlodipine				
	Estonia	0.43	0.40	0.36	-11
	Latvia	2.82	2.65	2.48	-6
	Lithuania	0.03	-	-	
C10BX09	rosuvastatin and amlodipine				
	Estonia	-	-	-	
	Latvia	0.06	0.20	0.09	-56
	Lithuania	-	-	-	
C10BX11	atorvastatin, amlodipine and perindopril				
	Estonia	0.05	0.30	0.50	67
	Latvia	0.74	2.03	3.21	58
	Lithuania	0.33	1.38	2.23	62

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
D	DERMATOLOGICALS				
	Estonia	1.78	1.80	1.84	2
	Latvia	0.43	0.44	0.50	15
	Lithuania	0.65	0.67	0.74	10
D01	ANTIFUNGALS FOR DERMATOLOGICAL USE				
	Estonia	1.20	1.20	1.26	5
	Latvia	0.36	0.36	0.40	14
	Lithuania	0.50	0.49	0.53	9
D01B	ANTIFUNGALS FOR SYSTEMIC USE				
	Estonia	1.20	1.20	1.26	5
	Latvia	0.36	0.36	0.40	14
	Lithuania	0.50	0.49	0.53	9
D01BA	Antifungals for systemic use				
	Estonia	1.20	1.20	1.26	5
	Latvia	0.36	0.36	0.40	14
	Lithuania	0.50	0.49	0.53	9
D01BA01	griseofulvin				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
D01BA02	terbinafine				
	Estonia	1.20	1.20	1.26	5
	Latvia	0.36	0.36	0.40	14
	Lithuania	0.50	0.49	0.53	9
D05	ANTIPSORIATICS				
	Estonia	0.05	0.06	0.06	-1
	Latvia	0.01	0.01	0.01	77
	Lithuania	0.01	<0.01	0.01	50
D05B	ANTIPSORIATICS FOR SYSTEMIC USE				
	Estonia	0.05	0.06	0.06	-1
	Latvia	0.01	0.01	0.01	77
	Lithuania	0.01	<0.01	0.01	50
D05BB	Retinoids for treatment of psoriasis				
	Estonia	0.05	0.06	0.06	-1
	Latvia	0.01	0.01	0.01	77
	Lithuania	0.01	<0.01	0.01	50
D05BB02	acitretin				
	Estonia	0.05	0.06	0.06	-1
	Latvia	0.01	0.01	0.01	77
	Lithuania	0.01	<0.01	0.01	50
D10	ANTI-ACNE PREPARATIONS				
	Estonia	0.48	0.50	0.47	-6
	Latvia	0.07	0.07	0.09	18
	Lithuania	0.14	0.18	0.20	12
D10B	ANTI-ACNE PREPARATIONS FOR SYSTEMIC USE				
	Estonia	0.48	0.50	0.47	-6
	Latvia	0.07	0.07	0.09	18
	Lithuania	0.14	0.18	0.20	12
D10BA	Retinoids for treatment of acne				
	Estonia	0.48	0.50	0.47	-6
	Latvia	0.07	0.07	0.09	18
	Lithuania	0.14	0.18	0.20	12

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
D10BA01	isotretinoin				
	Estonia	0.48	0.50	0.47	-6
	Latvia	0.07	0.07	0.09	18
	Lithuania	0.14	0.18	0.20	12
D11	OTHER DERMATOLOGICAL PREPARATIONS				
	Estonia	0.05	0.04	0.05	13
	Latvia	-	-	-	
	Lithuania	-	-	-	
D11A	OTHER DERMATOLOGICAL PREPARATIONS				
	Estonia	0.05	0.04	0.05	13
	Latvia	-	-	-	
	Lithuania	-	-	-	
D11AX	Other dermatologicals				
	Estonia	0.05	0.04	0.05	13
	Latvia	-	-	-	
	Lithuania	-	-	-	
D11AX10	finasteride				
	Estonia	0.05	0.04	0.05	13
	Latvia	-	-	-	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
G	GENITO URINARY SYSTEM AND SEX HORMONES				
	Estonia	54.48	53.99	55.44	3
	Latvia	25.92	26.54	26.17	
	Lithuania	31.03	30.27	31.64	5
G01	GYNECOLOGICAL ANTIINFECTIVES AND ANTISEPTICS				
	Estonia	0.66	0.62	0.80	28
	Latvia	0.59	0.55	0.60	8
	Lithuania	1.33	1.43	1.49	5
G01A	ANTIINFECTIVES AND ANTISEPTICS, EXCL. COMBINATIONS WITH CORTICOSTEROIDS				
	Estonia	0.66	0.62	0.80	28
	Latvia	0.59	0.55	0.60	8
	Lithuania	1.33	1.43	1.49	5
G01AA	Antibiotics				
	Estonia	0.07	0.08	0.05	-28
	Latvia	0.03	0.03	0.02	-18
	Lithuania	0.67	0.71	0.71	
G01AA10	clindamycin				
	Estonia	0.07	0.08	0.05	-28
	Latvia	0.03	0.03	0.02	-18
	Lithuania	0.41	0.47	0.50	7
G01AA51	nystatin, combinations				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.26	0.24	0.21	-13
G01AC	Quinoline derivatives				
	Estonia	-	-	0.03	
	Latvia	-	-	0.03	
	Lithuania	-	-	-	
G01AC05	dequalinium				
	Estonia	-	-	0.03	
	Latvia	-	-	0.03	
	Lithuania	-	-	-	
G01AF	Imidazole derivatives				
	Estonia	0.60	0.55	0.72	31
	Latvia	0.53	0.50	0.52	5
	Lithuania	0.52	0.58	0.67	16
G01AF01	metronidazole				
	Estonia	0.12	0.08	0.05	-35
	Latvia	0.04	0.03	0.03	-18
	Lithuania	0.04	0.05	0.04	-21
G01AF02	clotrimazole				
	Estonia	0.35	0.35	0.56	61
	Latvia	0.36	0.34	0.39	15
	Lithuania	0.15	0.15	0.35	128
G01AF05	econazole				
	Estonia	0.12	0.12	0.10	-12
	Latvia	0.07	0.06	0.05	-13
	Lithuania	0.03	0.02	0.02	-13
G01AF12	fenticonazole				
	Estonia	-	-	-	
	Latvia	0.05	0.06	0.05	-19
	Lithuania	0.29	0.35	0.26	-26

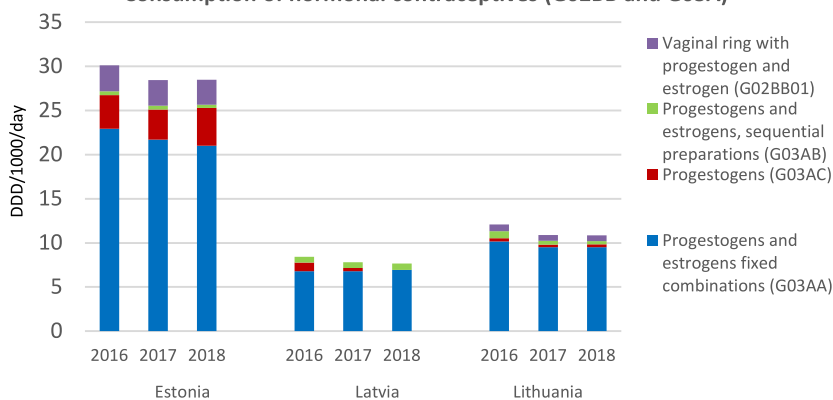
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
G01AF15	butoconazole				
	Estonia	-	-	-	
	Latvia	0.02	0.02	0.01	-16
	Lithuania	-	-	-	
G01AX	Other anti-infectives and antiseptics				
	Estonia	-	-	-	
	Latvia	0.03	0.02	0.02	-22
	Lithuania	0.15	0.14	0.12	-17
G01AX05	nifuratel				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.12	0.12	0.10	-17
G01AX11	povidone-iodine				
	Estonia	-	-	-	
	Latvia	0.03	0.02	0.02	-22
	Lithuania	0.03	0.02	0.02	-16
G02	OTHER GYNECOLOGICALS				
	Estonia	4.20	4.35	4.28	-2
	Latvia	0.04	0.04	0.04	4
	Lithuania	0.93	0.67	0.65	-3
G02A	UTEROTONICS				
	Estonia	0.09	0.10	0.10	2
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
G02AB	Ergot alkaloids				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
G02AB01	methylergometrine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
G02AD	Prostaglandins				
	Estonia	0.09	0.09	0.10	5
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
G02AD02	dinoprostone				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
G02AD06	misoprostol				
	Estonia	0.08	0.08	0.09	4
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	
G02B	CONTRACEPTIVES FOR TOPICAL USE				
	Estonia	2.96	2.91	2.85	-2
	Latvia	-	-	-	
	Lithuania	0.76	0.67	0.65	-3
G02BA	Intrauterine contraceptives				
	Estonia	0.02	0.02	0.02	
	Latvia	-	-	-	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
G02BA03	plastic IUD with progestogen				
	Estonia	0.02	0.02	0.02	
	Latvia	-	-	-	
	Lithuania	-	-	-	
G02BB	Intravaginal contraceptives				
	Estonia	2.94	2.90	2.83	-2
	Latvia	-	-	-	
	Lithuania	0.76	0.67	0.65	-3
G02BB01	vaginal ring with progestogen and estrogen				
	Estonia	2.94	2.90	2.83	-2
	Latvia	-	-	-	
	Lithuania	0.76	0.67	0.65	-3
G02C	OTHER GYNECOLOGICALS				
	Estonia	1.15	1.34	1.33	-1
	Latvia	0.03	0.04	0.04	4
	Lithuania	0.17	0.01	0.01	
G02CB	Prolactine inhibitors				
	Estonia	0.17	0.16	0.16	-6
	Latvia	0.03	0.04	0.04	4
	Lithuania	0.17	0.01	0.01	
G02CB01	bromocriptine				
	Estonia	0.15	0.15	0.13	-10
	Latvia	-	-	-	
	Lithuania	0.17	0.01	0.01	
G02CB03	cabergoline				
	Estonia	0.02	0.02	0.02	29
	Latvia	0.03	0.04	0.04	4
	Lithuania	-	-	-	
G02CX	Other gynecologicals				
	Estonia	0.98	1.17	1.17	
	Latvia	-	<0.01	<0.01	
	Lithuania	-	-	-	
G02CX01	atosiban				
	Estonia	-	-	-	
	Latvia	-	<0.01	<0.01	
	Lithuania	-	-	-	
G02CX03	Agni casti fructus				
	Estonia	0.69	0.74	0.69	-7
	Latvia	-	-	-	
	Lithuania	-	-	-	
G02CX04	Cimicifugae rhizoma				
	Estonia	0.29	0.43	0.48	12
	Latvia	-	-	-	
	Lithuania	-	-	-	
G03	SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM				
	Estonia	33.53	31.84	31.76	
	Latvia	15.88	15.64	14.84	-3
	Lithuania	16.07	13.53	13.98	3
G03A	HORMONAL CONTRACEPTIVES FOR SYSTEMIC USE				
	Estonia	27.27	25.62	25.72	
	Latvia	8.66	8.08	7.92	2
	Lithuania	11.39	10.32	10.25	-1

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
G03AA	Progestogens and estrogens, fixed combinations				
	Estonia	22.94	21.69	21.00	-3
	Latvia	6.82	6.79	6.94	2
	Lithuania	10.18	9.50	9.50	
G03AA07	levonorgestrel and ethinylestradiol				
	Estonia	0.14	0.19	0.26	34
	Latvia	0.24	0.25	0.26	4
	Lithuania	0.36	0.36	0.36	
G03AA09	desogestrel and ethinylestradiol				
	Estonia	1.98	1.58	1.44	-9
	Latvia	0.44	0.41	0.34	-17
	Lithuania	1.33	1.41	1.21	-15
G03AA10	gestodene and ethinylestradiol				
	Estonia	7.59	6.96	6.46	-7
	Latvia	1.27	1.23	1.13	-8
	Lithuania	2.96	2.84	2.77	-3
G03AA11	norgestimate and ethinylestradiol				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.01	<0.01	-	
G03AA12	drospirenone and ethinylestradiol				
	Estonia	8.22	7.89	7.77	-1
	Latvia	3.63	3.59	3.85	7
	Lithuania	4.16	3.45	3.59	4
G03AA13	norelgestromin and ethinylestradiol				
	Estonia	1.78	1.82	1.84	1
	Latvia	0.03	0.04	0.04	
	Lithuania	0.36	0.36	0.32	-12
G03AA14	nomegestrol and estradiol				
	Estonia	0.07	0.04	-	
	Latvia	0.15	0.16	0.15	-6
	Lithuania	0.20	0.19	0.18	-3
G03AA15	chlormadinone and ethinylestradiol				
	Estonia	0.68	0.58	0.54	-8
	Latvia	0.75	0.83	0.92	11
	Lithuania	0.73	0.82	0.94	16
G03AA16	dienogest and ethinylestradiol				
	Estonia	2.48	2.63	2.69	2
	Latvia	0.30	0.29	0.26	-10
	Lithuania	0.07	0.07	0.10	41
G03AB	Progestogens and estrogens, sequential preparations				
	Estonia	0.46	0.44	0.36	-17
	Latvia	0.64	0.66	0.71	9
	Lithuania	0.79	0.45	0.37	-18
G03AB03	levonorgestrel and ethinylestradiol				
	Estonia	0.34	0.29	0.21	-25
	Latvia	0.08	0.07	0.06	-14
	Lithuania	0.40	0.40	0.32	-18
G03AB05	desogestrel and ethinylestradiol				
	Estonia	0.02	0.02	0.01	-66
	Latvia	0.01	0.01	0.01	
	Lithuania	0.06	0.05	0.04	-16

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
G03AB08	dienogest and estradiol				
	Estonia	0.10	0.13	0.14	11
	Latvia	0.54	0.57	0.64	12
	Lithuania	0.34	<0.01	-	
G03AC	Progestogens				
	Estonia	3.79	3.42	4.28	25
	Latvia	0.97	0.36	-	
	Lithuania	0.36	0.29	0.34	16
G03AC08	etonogestrel				
	Estonia	1.53	1.06	1.68	58
	Latvia	0.97	0.36	-	
	Lithuania	-	-	-	
G03AC09	desogestrel				
	Estonia	2.27	2.35	2.59	10
	Latvia	-	-	-	
	Lithuania	0.36	0.29	0.34	16
G03AD	Emergency contraceptives				
	Estonia	0.07	0.07	0.08	8
	Latvia	0.23	0.27	0.27	
	Lithuania	0.06	0.08	0.08	-7
G03AD01	levonorgestrel				
	Estonia	0.07	0.07	0.08	6
	Latvia	0.23	0.26	0.25	
	Lithuania	0.06	0.06	0.06	2
G03AD02	ulipristal				
	Estonia	-	<0.01	<0.01	
	Latvia	-	0.01	0.02	
	Lithuania	<0.01	0.03	0.02	-27
G03B	ANDROGENS				
	Estonia	0.20	0.22	0.23	6
	Latvia	0.28	0.33	0.26	-23
	Lithuania	0.10	0.12	0.12	2
G03BA	3-oxoandrostens (4) derivatives				
	Estonia	0.20	0.22	0.23	6
	Latvia	0.28	0.33	0.26	-23
	Lithuania	0.10	0.12	0.12	2

Consumption of hormonal contraceptives (G02BB and G03A)



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
G03BA03	testosterone				
	Estonia	0.20	0.22	0.23	6
	Latvia	0.28	0.33	0.26	-23
	Lithuania	0.10	0.12	0.12	2
G03C	ESTROGENS				
	Estonia	1.54	1.70	1.51	-12
	Latvia	2.74	2.88	2.30	-20
	Lithuania	0.64	0.21	0.65	207
G03CA	Natural and semisynthetic estrogens, plain				
	Estonia	1.37	1.54	1.50	-3
	Latvia	2.70	2.84	2.30	-19
	Lithuania	0.57	0.15	0.58	298
G03CA03	estradiol				
	Estonia	1.07	1.27	1.26	-1
	Latvia	2.52	2.64	2.09	-21
	Lithuania	0.36	0.12	0.56	348
G03CA04	estriol				
	Estonia	0.31	0.27	0.24	-11
	Latvia	0.17	0.20	0.21	8
	Lithuania	0.21	0.02	0.02	
G03CX	Other estrogens				
	Estonia	0.17	0.16	<0.01	
	Latvia	0.04	0.04	<0.01	
	Lithuania	0.07	0.07	0.07	6
G03CX01	tibolone				
	Estonia	0.17	0.16	<0.01	
	Latvia	0.04	0.04	<0.01	
	Lithuania	0.07	0.07	0.07	6
G03D	PROGESTOGENS				
	Estonia	1.44	1.29	1.26	-2
	Latvia	1.21	1.29	1.25	-4
	Lithuania	0.75	0.78	0.81	4
G03DA	Pregnen (4) derivatives				
	Estonia	0.75	0.56	0.49	-13
	Latvia	0.51	0.54	0.51	-7
	Lithuania	0.05	0.06	0.07	19
G03DA02	medroxyprogesterone				
	Estonia	0.42	0.16	0.09	-41
	Latvia	0.15	0.11	0.04	-65
	Lithuania	-	-	-	
G03DA04	progesterone				
	Estonia	0.33	0.41	0.40	-2
	Latvia	0.36	0.43	0.47	8
	Lithuania	0.05	0.06	0.07	19
G03DB	Pregnadien derivatives				
	Estonia	0.69	0.73	0.77	6
	Latvia	0.70	0.75	0.74	-1
	Lithuania	0.69	0.72	0.74	3
G03DB01	dydrogesterone				
	Estonia	0.59	0.61	0.62	1
	Latvia	0.65	0.70	0.69	-1
	Lithuania	0.61	0.63	0.64	2
G03DB08	dienogest				
	Estonia	0.10	0.12	0.15	31
	Latvia	0.06	0.05	0.05	-6
	Lithuania	0.08	0.09	0.10	10

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
G03F	PROGESTOGENS AND ESTROGENS IN COMBINATION				
	Estonia	2.05	2.02	2.11	4
	Latvia	2.19	2.31	2.42	4
	Lithuania	1.43	1.32	1.36	3
G03FA	Progestogens and estrogens, fixed combinations				
	Estonia	1.57	1.56	1.66	6
	Latvia	1.70	1.79	1.97	9
	Lithuania	1.15	1.05	1.13	8
G03FA01	norethisterone and estrogen				
	Estonia	1.11	1.06	1.10	4
	Latvia	0.56	0.52	0.47	-10
	Lithuania	0.26	0.25	0.25	2
G03FA14	dydrogesterone and estrogen				
	Estonia	0.15	0.18	0.20	15
	Latvia	0.38	0.46	0.57	24
	Lithuania	0.23	0.28	0.33	19
G03FA15	dienogest and estrogen				
	Estonia	-	-	-	
	Latvia	0.44	0.45	0.50	11
	Lithuania	0.58	0.43	0.44	1
G03FA17	drospirenone and estrogen				
	Estonia	0.32	0.32	0.35	9
	Latvia	0.33	0.37	0.43	16
	Lithuania	0.08	0.09	0.11	19
G03FB	Progestogens and estrogens, sequential preparations				
	Estonia	0.47	0.46	0.45	-2
	Latvia	0.49	0.52	0.45	-13
	Lithuania	0.28	0.27	0.23	-14
G03FB05	norethisterone and estrogen				
	Estonia	0.39	0.38	0.38	
	Latvia	0.18	0.18	0.18	
	Lithuania	0.19	0.20	0.23	12
G03FB08	dydrogesterone and estrogen				
	Estonia	0.08	0.08	0.08	-10
	Latvia	0.18	0.20	0.26	30
	Lithuania	-	-	-	
G03FB09	levonorgestrel and estrogen				
	Estonia	-	-	-	
	Latvia	0.14	0.14	0.01	-93
	Lithuania	0.09	0.07	<0.01	-94
G03G	GONADOTROPINS AND OTHER OVULATION STIMULANTS				
	Estonia	0.34	0.36	0.39	10
	Latvia	0.34	0.34	0.32	-6
	Lithuania	0.20	0.24	0.29	18
G03GA	Gonadotropins				
	Estonia	0.15	0.13	0.14	12
	Latvia	0.17	0.17	0.10	-45
	Lithuania	0.07	0.11	0.15	37
G03GA01	chorionic gonadotrophin				
	Estonia	0.02	<0.01	-	
	Latvia	0.10	0.09	<0.01	-92
	Lithuania	0.03	0.05	0.11	94

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
G03GA02	human menopausal gonadotrophin				
	Estonia	<0.01	-	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
G03GA05	follitropin alfa				
	Estonia	0.10	0.10	0.12	15
	Latvia	0.05	0.07	0.07	6
	Lithuania	0.02	0.03	0.04	15
G03GA06	follitropin beta				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	0.01	<0.01	<0.01	
	Lithuania	0.03	0.02	<0.01	-94
G03GA07	lutropin alfa				
	Estonia	0.01	0.01	0.01	2
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
G03GA08	choriogonadotropin alfa				
	Estonia	0.01	0.01	0.01	5
	Latvia	0.01	0.01	0.01	65
	Lithuania	<0.01	<0.01	-	
G03GA09	corifollitropin alfa				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01			
	Lithuania	-	-	-	
G03GA10	follitropin delta				
	Estonia	-	-	-	
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	
G03GA30	combinations				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
G03GB	Ovulation stimulants, synthetic				
	Estonia	0.20	0.23	0.25	9
	Latvia	0.17	0.16	0.22	36
	Lithuania	0.13	0.14	0.14	3
G03GB02	clomifene				
	Estonia	0.20	0.23	0.25	9
	Latvia	0.17	0.16	0.22	36
	Lithuania	0.13	0.14	0.14	3
G03H	ANTIANDROGENS				
	Estonia	0.61	0.55	0.51	-7
	Latvia	0.43	0.39	0.35	-9
	Lithuania	0.57	0.54	0.51	-7
G03HA	Antiandrogens, plain				
	Estonia	0.16	0.14	0.12	-9
	Latvia	0.03	0.01	0.01	84
	Lithuania	0.02	0.02	0.02	16
G03HA01	cypoterone				
	Estonia	0.16	0.14	0.12	-9
	Latvia	0.03	0.01	0.01	84
	Lithuania	0.02	0.02	0.02	16

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
G03HB	Antiandrogens and estrogens				
	Estonia	0.45	0.41	0.38	-7
	Latvia	0.40	0.38	0.34	-10
	Lithuania	0.55	0.53	0.48	-8
G03HB01	cyproterone and estrogen				
	Estonia	0.45	0.41	0.38	-7
	Latvia	0.40	0.38	0.34	-10
	Lithuania	0.55	0.53	0.48	-8
G03X	OTHER SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM				
	Estonia	0.08	0.09	0.04	-51
	Latvia	0.02	0.02	0.01	-41
	Lithuania	-	-	-	
G03XA	Antigonadotropins and similar agents				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
G03XA01	danazol				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
G03XB	Progesterone receptor modulators				
	Estonia	0.08	0.08	0.04	-51
	Latvia	0.02	0.02	0.01	-41
	Lithuania	-	-	-	
G03XB01	mifepristone				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
G03XB02	ulipristal				
	Estonia	0.08	0.08	0.04	-53
	Latvia	0.02	0.02	0.01	-43
	Lithuania	-	-	-	
G04	UROLOGICALS				
	Estonia	16.09	17.19	18.60	8
	Latvia	9.41	10.30	10.69	4
	Lithuania	14.70	14.65	15.52	6
G04B	UROLOGICALS				
	Estonia	2.44	2.68	2.93	9
	Latvia	1.17	1.34	1.42	6
	Lithuania	2.88	3.08	3.22	4
G04BD	Drugs for urinary frequency and incontinence				
	Estonia	1.32	1.48	1.65	12
	Latvia	0.59	0.67	0.68	3
	Lithuania	1.86	1.95	2.03	4
G04BD02	flavoxate				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.05	0.05	0.04	-11
G04BD04	oxybutynin				
	Estonia	0.71	0.70	0.69	-1
	Latvia	0.28	0.29	0.29	1
	Lithuania	0.33	0.39	0.29	-25

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
G04BD06	propiverine				
	Estonia	<0.01	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
G04BD07	tolterodine				
	Estonia	0.24	0.26	0.27	4
	Latvia	0.08	0.08	0.07	-9
	Lithuania	1.20	1.14	1.15	1
G04BD08	solifenacin				
	Estonia	0.03	0.06	0.14	151
	Latvia	0.22	0.27	0.29	8
	Lithuania	0.28	0.38	0.55	45
G04BD09	tropium				
	Estonia	0.19	0.19	0.19	-2
	Latvia	-	-	-	
	Lithuania	-	-	-	
G04BD12	mirabegron				
	Estonia	0.15	0.27	0.38	34
	Latvia	0.02	0.02	0.02	-1
	Lithuania	0.01	0.01	0.01	33
G04BE	Drugs used in erectile dysfunction				
	Estonia	1.11	1.19	1.26	6
	Latvia	0.57	0.67	0.74	10
	Lithuania	1.01	1.11	1.17	5
G04BE01	alprostadil				
	Estonia	0.02	0.02	0.01	-45
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
G04BE03	sildenafil				
	Estonia	0.85	0.92	0.95	4
	Latvia	0.48	0.57	0.64	12
	Lithuania	0.79	0.88	0.92	4
G04BE08	tadalafil				
	Estonia	0.16	0.19	0.24	29
	Latvia	0.03	0.03	0.04	13
	Lithuania	0.13	0.13	0.14	14
G04BE09	vardeafil				
	Estonia	0.03	0.02	0.01	-56
	Latvia	0.04	0.03	0.03	-16
	Lithuania	0.02	0.02	0.01	-39
G04BE10	avanafil				
	Estonia	0.05	0.05	0.05	-4
	Latvia	0.02	0.03	0.03	-5
	Lithuania	0.07	0.08	0.10	19
G04BX	Other urologicals				
	Estonia	0.01	0.01	0.01	11
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	0.01	-9
G04BX14	dapoxetine				
	Estonia	0.01	0.01	0.01	11
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	0.01	-9

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
G04BX16	tiopronin				
	Estonia	0	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
G04C	DRUGS USED IN BENIGN PROSTATIC HYPERTROPHY				
	Estonia	13.65	14.50	15.68	8
	Latvia	8.24	8.96	9.27	3
	Lithuania	10.82	11.57	12.31	6
G04CA	Alpha-adrenoreceptor antagonists				
	Estonia	10.92	11.43	12.69	11
	Latvia	6.87	7.55	7.83	4
	Lithuania	8.25	9.07	9.88	9
G04CA01	alfuzosin				
	Estonia	1.95	2.11	2.07	-2
	Latvia	0.10	0.10	0.10	
	Lithuania	0.10	0.11	0.10	-7
G04CA02	tamsulosin				
	Estonia	6.26	6.49	7.21	11
	Latvia	4.08	4.69	5.14	10
	Lithuania	6.53	7.33	8.02	9
G04CA04	silodosin				
	Estonia	0	0.01	0.08	744
	Latvia	0	<0.01	0.04	1936
	Lithuania	0	0.02	0.14	735
G04CA52	tamsulosin and dutasteride				
	Estonia	2.71	2.82	3.34	18
	Latvia	2.69	2.76	2.55	-8
	Lithuania	1.63	1.62	1.61	-1
G04CB	Testosterone-5-alpha reductase inhibitors				
	Estonia	0.52	0.59	0.52	-12
	Latvia	1.37	1.42	1.44	2
	Lithuania	2.57	2.49	2.43	-2
G04CB01	finasteride				
	Estonia	0.16	0.15	0.14	-5
	Latvia	0.97	1.01	1.00	-1
	Lithuania	1.78	1.78	1.78	
G04CB02	dutasteride				
	Estonia	0.36	0.44	0.37	-15
	Latvia	0.40	0.41	0.44	9
	Lithuania	0.79	0.71	0.65	-9
G04CX	Other drugs used in benign prostatic hypertrophy				
	Estonia	2.21	2.48	2.47	-1
	Latvia	-	-	-	
	Lithuania	-	-	-	
G04CX02	Sabalıs serrulatae fructus				
	Estonia	2.21	2.48	2.47	-1
	Latvia	-	-	-	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
H	SYSTEMIC HORMONAL PREPARATIONS, EXCL. SEX HORMONES AND INSULINS				
	Estonia	27.65	29.27	30.53	4
	Latvia	25.85	27.67	27.31	-1
	Lithuania	27.94	30.06	31.09	3
H01	PITUITARY AND HYPOTHALAMIC HORMONES AND ANALOGUES				
	Estonia	0.40	0.41	0.41	1
	Latvia	0.43	0.43	0.42	-1
	Lithuania	0.40	0.38	0.39	1
H01A	ANTERIOR PITUITARY LOBE HORMONES AND ANALOGUES				
	Estonia	0.12	0.14	0.15	6
	Latvia	0.17	0.17	0.16	-2
	Lithuania	0.19	0.17	0.17	1
H01AA	ACTH				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
H01AA02	tetracosactide				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
H01AB	Thyrotropin				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
H01AB01	thyrotropin alfa				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
H01AC	Somatropin and somatropin agonists				
	Estonia	0.11	0.12	0.13	8
	Latvia	0.17	0.17	0.16	-2
	Lithuania	0.19	0.17	0.17	2
H01AC01	somatropin				
	Estonia	0.11	0.12	0.13	8
	Latvia	0.17	0.17	0.16	-2
	Lithuania	0.19	0.17	0.17	2
H01AC03	mecasermin				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	<0.01	-	
H01AX	Other anterior pituitary lobe hormones and analogues				
	Estonia	0.01	0.02	0.02	-7
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	
H01AX01	pegvisomant				
	Estonia	0.01	0.02	0.02	-7
	Latvia	-	-	<0.01	
	Lithuania				
H01B	POSTERIOR PITUITARY LOBE HORMONES				
	Estonia	0.19	0.16	0.15	-9
	Latvia	0.17	0.17	0.15	-10
	Lithuania	0.14	0.14	0.14	-1

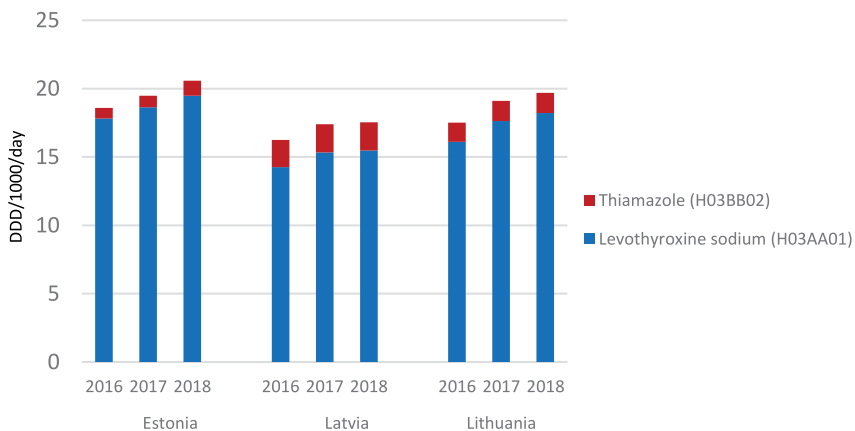
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
H01BA	Vasopressin and analogues				
	Estonia	0.10	0.09	0.09	-2
	Latvia	0.07	0.08	0.07	-6
	Lithuania	0.11	0.11	0.10	-1
H01BA01	vasopressin				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
H01BA02	desmopressin				
	Estonia	0.10	0.09	0.09	-2
	Latvia	0.07	0.08	0.07	-6
	Lithuania	0.11	0.11	0.10	-1
H01BB	Oxytocin and analogues				
	Estonia	0.09	0.07	0.06	-16
	Latvia	0.10	0.09	0.08	-13
	Lithuania	0.03	0.04	0.03	-3
H01BB01	demoxytocin				
	Estonia	0.06	0.04	0.03	-30
	Latvia	0.06	0.05	0.04	-15
	Lithuania	-	-	-	
H01BB02	oxytocin				
	Estonia	0.03	0.03	0.03	1
	Latvia	0.04	0.04	0.04	-11
	Lithuania	0.03	0.04	0.03	-3
H01BB03	carbetocin				
	Estonia	-	-	<0.01	
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	
H01C	HYPOTHALAMIC HORMONES				
	Estonia	0.10	0.11	0.11	8
	Latvia	0.09	0.09	0.11	16
	Lithuania	0.07	0.07	0.08	7
H01CB	Somatostatin and analogues				
	Estonia	0.08	0.09	0.10	6
	Latvia	0.09	0.09	0.10	19
	Lithuania	0.07	0.07	0.08	4
H01CB02	octreotide				
	Estonia	0.04	0.05	0.04	-22
	Latvia	0.04	0.03	0.04	16
	Lithuania	0.05	0.05	0.05	2
H01CB03	lanreotide				
	Estonia	0.04	0.04	0.06	34
	Latvia	0.05	0.05	0.06	20
	Lithuania	0.02	0.02	0.02	9
H01CB05	pasireotide				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
H01CC	Anti-gonadotropin-releasing hormones				
	Estonia	0.02	0.02	0.02	21
	Latvia	0.01	0.01	0.01	-9
	Lithuania	<0.01	<0.01	<0.01	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
H01CC01	ganirelix				
	Estonia	0.01	0.01	0.01	3
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
H01CC02	cetorelix				
	Estonia	<0.01	<0.01	0.01	76
	Latvia	0.01	0.01	0.01	-10
	Lithuania	<0.01	<0.01	<0.01	
H02	CORTICOSTEROIDS FOR SYSTEMIC USE				
	Estonia	7.99	8.74	9.32	7
	Latvia	9.11	9.79	9.31	-5
	Lithuania	10.02	10.56	11.01	4
H02A	CORTICOSTEROIDS FOR SYSTEMIC USE, PLAIN				
	Estonia	7.99	8.74	9.31	7
	Latvia	9.11	9.79	9.31	-5
	Lithuania	10.02	10.56	11.01	4
H02AA	Mineralocorticoids				
	Estonia	0.14	0.14	0.15	5
	Latvia	0.08	0.09	0.11	17
	Lithuania	0.07	0.08	0.08	3
H02AA02	fludrocortisone				
	Estonia	0.14	0.14	0.15	5
	Latvia	0.08	0.09	0.11	17
	Lithuania	0.07	0.08	0.08	3
H02AB	Glucocorticoids				
	Estonia	7.84	8.60	9.17	7
	Latvia	9.03	9.70	9.20	-5
	Lithuania	9.95	10.48	10.93	4
H02AB01	betamethasone				
	Estonia	0.02	0.03	0.02	-20
	Latvia	-	-	-	
	Lithuania	-	-	-	
H02AB02	dexamethasone				
	Estonia	1.30	1.80	2.01	12
	Latvia	4.10	4.45	4.23	-5
	Lithuania	5.19	5.60	5.92	6
H02AB04	methylprednisolone				
	Estonia	2.60	2.68	2.96	10
	Latvia	2.49	2.73	2.56	-6
	Lithuania	2.73	2.78	2.92	5
H02AB06	prednisolone				
	Estonia	3.24	3.38	3.43	1
	Latvia	1.78	1.77	1.71	-3
	Lithuania	1.71	1.77	1.73	-2
H02AB08	triamcinolone				
	Estonia	0.44	0.46	0.47	1
	Latvia	0.39	0.43	0.44	3
	Lithuania	0.31	0.34	0.36	7
H02AB09	hydrocortisone				
	Estonia	0.24	0.25	0.27	8
	Latvia	0.27	0.32	0.26	-19
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
H02B	CORTICOSTEROIDS FOR SYSTEMIC USE, COMBINATIONS				
	Estonia	0.01	0.01	0.01	-24
	Latvia	-	-	-	
	Lithuania	-	-	-	
H02BX	Corticosteroids for systemic use, combinations				
	Estonia	0.01	0.01	0.01	-24
	Latvia	-	-	-	
	Lithuania	-	-	-	
H03	THYROID THERAPY				
	Estonia	19.22	20.08	20.76	3
	Latvia	16.25	17.40	17.53	1
	Lithuania	17.51	19.11	19.68	3
H03A	THYROID PREPARATIONS				
	Estonia	17.81	18.63	19.47	4
	Latvia	14.25	15.34	15.47	1
	Lithuania	16.10	17.63	18.21	3
H03AA	Thyroid hormones				
	Estonia	17.81	18.63	19.47	4
	Latvia	14.25	15.34	15.47	1
	Lithuania	16.10	17.63	18.21	3
H03AA01	levothyroxine sodium				
	Estonia	17.81	18.63	19.47	4
	Latvia	14.25	15.34	15.47	1
	Lithuania	16.10	17.63	18.21	3
H03AA02	liothyronine sodium				
	Estonia	<0.01	<0.01	0.01	43
	Latvia	-	-	-	
	Lithuania	-	-	-	
H03B	ANTITHYROID PREPARATIONS				
	Estonia	1.42	1.45	1.29	-11
	Latvia	2.00	2.06	2.07	
	Lithuania	1.42	1.48	1.47	-1
H03BA	Thiouracils				
	Estonia	0.63	0.59	0.17	-70
	Latvia	-	-	-	
	Lithuania	-	-	-	
H03BA02	propylthiouracil				
	Estonia	0.63	0.59	0.17	-70
	Latvia	-	-	-	
	Lithuania	-	-	-	
H03BB	Sulfur-containing imidazole derivatives				
	Estonia	0.78	0.86	1.12	30
	Latvia	2.00	2.06	2.07	
	Lithuania	1.42	1.48	1.47	-1
H03BB02	thiamazole				
	Estonia	0.78	0.86	1.12	30
	Latvia	2.00	2.06	2.07	
	Lithuania	1.42	1.48	1.47	-1
H04	PANCREATIC HORMONES				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
H04A	GLYCOGENOLYTIC HORMONES				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	-	
H04AA	Glycogenolytic hormones				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	-	
H04AA01	glucagon				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	-	
H05	CALCIUM HOMEOSTASIS				
	Estonia	0.03	0.04	0.04	1
	Latvia	0.06	0.05	0.05	-1
	Lithuania	0.01	0.01	0.02	67
H05A	PARATHYROID HORMONES AND ANALOGUES				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	0.01	14
H05AA	Parathyroid hormones and analogues				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	0.01	14
H05AA02	teriparatide				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	0.01	14
H05B	ANTI-PARATHYROID AGENTS				
	Estonia	0.03	0.04	0.04	1
	Latvia	0.06	0.05	0.05	-1
	Lithuania	-	0.01	0.01	140
H05BX	Other anti-parathyroid agents				
	Estonia	0.03	0.04	0.04	1
	Latvia	0.06	0.05	0.05	-1
	Lithuania	-	0.01	0.01	140

Consumption of thyroid preparations (H03)



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
H05BX01	cinacalcet				
	Estonia	0.03	0.03	0.03	19
	Latvia	0.02	0.02	0.02	8
	Lithuania	-	0.01	0.01	140
H05BX02	paricalcitol				
	Estonia	0.01	0.01	0.01	-39
	Latvia	0.03	0.03	0.03	-6
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J	ANTIINFECTIVES FOR SYSTEMIC USE				
	Estonia	18.25	18.95	19.58	3
	Latvia	16.81	17.37	17.31	
	Lithuania	21.65	21.62	21.86	1
J01	ANTIBACTERIALS FOR SYSTEMIC USE				
	Estonia	12.09	11.99	12.16	1
	Latvia	13.65	14.27	13.92	-2
	Lithuania	20.20	20.19	20.19	
J01A	TETRACYCLINES				
	Estonia	1.67	1.39	1.35	-3
	Latvia	2.35	2.33	2.26	-3
	Lithuania	1.52	1.46	1.39	-5
J01AA	Tetracyclines				
	Estonia	1.67	1.39	1.35	-3
	Latvia	2.35	2.33	2.26	-3
	Lithuania	1.52	1.46	1.39	-5
J01AA02	doxycycline				
	Estonia	1.67	1.39	1.35	-3
	Latvia	2.35	2.33	2.26	-3
	Lithuania	1.52	1.46	1.39	-5
J01AA07	tetracycline				
	Estonia	-	<0.01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J01AA08	minocycline				
	Estonia	<0.01	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J01AA12	tigecycline				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
J01C	BETA-LACTAM ANTIBACTERIALS, PENICILLINS				
	Estonia	3.90	4.05	4.35	8
	Latvia	4.65	5.02	4.86	-3
	Lithuania	11.06	11.29	11.28	
J01CA	Penicillins with extended spectrum				
	Estonia	1.71	1.65	1.66	1
	Latvia	3.03	3.19	2.86	-10
	Lithuania	8.20	8.25	8.03	-3
J01CA01	ampicillin				
	Estonia	0.02	0.01	0.01	2
	Latvia	0.08	0.08	0.07	-12
	Lithuania	0.35	0.28	0.27	-6
J01CA04	amoxicillin				
	Estonia	1.69	1.64	1.65	1
	Latvia	2.95	3.11	2.79	-10
	Lithuania	7.85	7.97	7.76	-3
J01CE	Beta-lactamase sensitive penicillins				
	Estonia	0.19	0.19	0.18	-4
	Latvia	0.01	0.01	0.01	-1
	Lithuania	0.32	0.30	0.27	-9

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J01CE01	benzylpenicillin				
	Estonia	0.02	0.02	0.02	-2
	Latvia	0.01	0.01	0.01	-1
	Lithuania	0.16	0.15	0.12	-21
J01CE02	phenoxymethylpenicillin				
	Estonia	0.17	0.17	0.16	-5
	Latvia	-	-	-	
	Lithuania	0.16	0.15	0.15	3
J01CE08	benzathine benzylpenicillin				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J01CF	Beta-lactamase resistant penicillins				
	Estonia	0.13	0.12	0.13	10
	Latvia	0.03	0.04	0.02	-60
	Lithuania	0.01	0.01	<0.01	-89
J01CF04	oxacillin				
	Estonia	0.13	0.12	0.13	10
	Latvia	0.03	0.04	0.02	-60
	Lithuania	0.01	0.01	<0.01	-89
J01CF05	flucloxacillin				
	Estonia	-	<0.01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J01CR	Combinations of penicillins, incl. beta-lactamase inhibitors				
	Estonia	1.87	2.09	2.38	14
	Latvia	1.58	1.76	1.97	11
	Lithuania	2.54	2.73	2.98	9
J01CR01	ampicillin and enzyme inhibitor				
	Estonia	0.06	0.06	0.06	2
	Latvia	-	-	-	
	Lithuania	-	-	-	
J01CR02	amoxicillin and enzyme inhibitor				
	Estonia	1.68	1.91	2.19	15
	Latvia	1.55	1.75	1.94	11
	Lithuania	2.41	2.61	2.86	10
J01CR04	sultamicillin				
	Estonia	0.10	0.10	0.10	-2
	Latvia	-	-	-	
	Lithuania	0.11	0.10	0.09	-14
J01CR05	piperacillin and enzyme inhibitor				
	Estonia	0.03	0.03	0.04	23
	Latvia	0.02	0.02	0.02	61
	Lithuania	0.02	0.02	0.04	46
J01D	OTHER BETA-LACTAM ANTIBACTERIALS				
	Estonia	1.70	1.73	1.69	-2
	Latvia	1.21	1.31	1.21	-7
	Lithuania	1.99	2.06	2.12	3
J01DB	First-generation cephalosporins				
	Estonia	0.23	0.25	0.25	1
	Latvia	0.31	0.30	0.27	-9
	Lithuania	0.44	0.49	0.44	-9

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J01DB04	cefazolin				
	Estonia	0.07	0.07	0.07	4
	Latvia	0.17	0.16	0.16	3
	Lithuania	0.22	0.26	0.22	-14
J01DB05	cefadroxil				
	Estonia	0.16	0.18	0.18	
	Latvia	0.14	0.14	0.11	-22
	Lithuania	0.22	0.23	0.22	-3
J01DC	Second-generation cephalosporins				
	Estonia	1.35	1.37	1.32	-3
	Latvia	0.39	0.48	0.49	2
	Lithuania	1.34	1.38	1.45	5
J01DC01	cefoxitin				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J01DC02	cefuroxime				
	Estonia	1.27	1.30	1.26	-3
	Latvia	0.38	0.48	0.48	2
	Lithuania	1.33	1.37	1.43	4
J01DC10	cefprozil				
	Estonia	0.08	0.07	0.06	-17
	Latvia	0.01	0.01	0.01	8
	Lithuania	0.01	0.01	0.02	100
J01DD	Third-generation cephalosporins				
	Estonia	0.06	0.05	0.05	-1
	Latvia	0.48	0.49	0.42	-14
	Lithuania	0.15	0.17	0.17	1
J01DD01	cefotaxime				
	Estonia	0.03	0.02	0.02	-9
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
J01DD02	ceftazidime				
	Estonia	0.01	0.01	0.01	-3
	Latvia	0.01	0.01	0.01	-18
	Lithuania	0.01	0.01	0.01	
J01DD04	ceftriaxone				
	Estonia	0.01	0.02	0.02	9
	Latvia	0.46	0.47	0.40	-14
	Lithuania	0.14	0.16	0.16	1
J01DD12	cefoperazone				
	Estonia	-	-	-	
	Latvia	0.01	<0.01	-	
	Lithuania	-	-	-	
J01DD52	ceftazidime and beta-lactamase inhibitor				
	Estonia	-	-	<0.01	
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	
J01DD62	cefoperazone, combinations				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	<0.01	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J01DE	Fourth-generation cephalosporins				
	Estonia	0.01	0.01	0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
J01DE01	cefepime				
	Estonia	0.01	0.01	0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
J01DH	Carbapenems				
	Estonia	0.05	0.06	0.06	5
	Latvia	0.03	0.03	0.03	-13
	Lithuania	0.05	0.02	0.05	141
J01DH02	meropenem				
	Estonia	0.02	0.02	0.02	3
	Latvia	0.01	0.02	0.02	9
	Lithuania	0.04	0.01	0.05	292
J01DH03	ertapenem				
	Estonia	0.02	0.02	0.02	19
	Latvia	<0.01	-	-	
	Lithuania	-	-	-	
J01DH51	imipenem and enzyme inhibitor				
	Estonia	0.02	0.02	0.02	-7
	Latvia	0.01	0.01	0.01	-44
	Lithuania	0.01	0.01	0.01	-40
J01DI	Other cephalosporins and penems				
	Estonia	-	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J01DI54	ceftolozane and beta-lactamase inhibitor				
	Estonia	-	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J01E	SULFONAMIDES AND TRIMETHOPRIM				
	Estonia	0.45	0.47	0.49	5
	Latvia	0.77	0.78	0.72	-8
	Lithuania	0.34	0.30	0.31	5
J01EA	Trimethoprim and derivatives				
	Estonia	0.03	0.03	0.02	-11
	Latvia	0.01	0.01	0.01	-13
	Lithuania	0.01	0.01	0.01	20
J01EA01	trimethoprim				
	Estonia	0.03	0.03	0.02	-11
	Latvia	0.01	0.01	0.01	-13
	Lithuania	0.01	0.01	0.01	20
J01EC	Intermediate-acting sulfonamides				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J01EC02	sulfadiazine				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J01EE	Combinations of sulfonamides and trimethoprim, incl. derivatives				
	Estonia	0.43	0.44	0.47	6
	Latvia	0.76	0.77	0.72	-8
	Lithuania	0.33	0.29	0.30	5
J01EE01	sulfamethoxazole and trimethoprim				
	Estonia	0.43	0.44	0.47	6
	Latvia	0.77	0.77	0.72	-8
	Lithuania	0.33	0.29	0.30	5
J01EE03	sulfametrole and trimethoprim				
	Estonia	-	-	-	
	Latvia	<0.01	-	-	
	Lithuania	-	-	-	
J01F	MACROLIDES, LINCOSAMIDES AND STREPTOGRAMINS				
	Estonia	2.41	2.43	2.50	3
	Latvia	2.40	2.62	2.75	5
	Lithuania	2.11	2.22	2.23	1
J01FA	Macrolides				
	Estonia	2.21	2.25	2.32	3
	Latvia	2.24	2.47	2.60	5
	Lithuania	2.08	2.19	2.20	1
J01FA01	erythromycin				
	Estonia	-	<0.01	<0.01	
	Latvia	0.05	0.04	0.04	-19
	Lithuania	0.03	0.02	0.02	-9
J01FA02	spiramycin				
	Estonia	<0.01	-	-	
	Latvia	0.02	0.02	0.02	-18
	Lithuania	0.02	0.02	0.02	-25
J01FA09	clarithromycin				
	Estonia	1.64	1.69	1.75	4
	Latvia	1.67	1.82	1.92	6
	Lithuania	1.59	1.68	1.71	2
J01FA10	azithromycin				
	Estonia	0.57	0.56	0.57	2
	Latvia	0.51	0.58	0.63	8
	Lithuania	0.43	0.46	0.45	-3
J01FF	Lincosamides				
	Estonia	0.21	0.19	0.18	-2
	Latvia	0.15	0.15	0.15	
	Lithuania	0.03	0.03	0.03	
J01FF01	clindamycin				
	Estonia	0.21	0.19	0.18	-2
	Latvia	0.15	0.14	0.14	-1
	Lithuania	0.01	0.01	0.01	20
J01FF02	lincomycin				
	Estonia	-	-	-	
	Latvia	0.01	0.01	0.01	7
	Lithuania	0.02	0.02	0.02	-11
J01G	AMINOGLYCOSIDE ANTIBACTERIALS				
	Estonia	0.03	0.04	0.03	-23
	Latvia	0.08	0.08	0.07	-7
	Lithuania	0.17	0.16	0.13	-19

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J01GA	Streptomycins				
	Estonia	-	0.01	-	
	Latvia	-	-	-	
	Lithuania	-	<0.01	<0.01	
J01GA01	streptomycin				
	Estonia	-	0.01	-	
	Latvia	-	-	-	
	Lithuania	-	<0.01	<0.01	
J01GB	Other aminoglycosides				
	Estonia	0.03	0.03	0.03	3
	Latvia	0.08	0.08	0.07	-7
	Lithuania	0.17	0.16	0.12	-21
J01GB01	tobramycin				
	Estonia	<0.01	<0.01	0.01	47
	Latvia	<0.01	0.01	0.01	59
	Lithuania	0.01	0.01	0.01	63
J01GB03	gentamicin				
	Estonia	0.02	0.02	0.02	-19
	Latvia	0.07	0.06	0.06	-10
	Lithuania	0.15	0.13	0.10	-28
J01GB04	kanamycin				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	<0.01	
J01GB06	amikacin				
	Estonia	0.01	0.01	0.01	8
	Latvia	0.01	0.01	0.01	-33
	Lithuania	0.01	0.01	0.01	-21
J01M	QUINOLONE ANTIBACTERIALS				
	Estonia	1.00	1.00	0.87	-12
	Latvia	1.23	1.22	1.14	-6
	Lithuania	1.21	1.16	1.11	-4
J01MA	Fluoroquinolones				
	Estonia	1.00	1.00	0.87	-12
	Latvia	1.20	1.19	1.12	-6
	Lithuania	1.17	1.12	1.07	-5
J01MA01	ofloxacin				
	Estonia	0.02	0.02	0.02	-15
	Latvia	0.09	0.07	0.05	-35
	Lithuania	0.13	0.08	0.06	-29
J01MA02	ciprofloxacin				
	Estonia	0.73	0.68	0.68	-1
	Latvia	0.92	0.94	0.91	-3
	Lithuania	0.68	0.69	0.69	
J01MA06	norfloxacin				
	Estonia	0.20	0.19	0.16	-16
	Latvia	0.17	0.17	0.15	-11
	Lithuania	0.15	0.15	0.15	2
J01MA12	levofloxacin				
	Estonia	0.04	0.05	0.01	-70
	Latvia	-	<0.01	<0.01	
	Lithuania	0.19	0.16	0.11	-33

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J01MA14	moxifloxacin				
	Estonia	0.01	0.06	0.01	-85
	Latvia	0.02	0.02	0.01	-19
	Lithuania	0.03	0.04	0.06	55
J01MB	Other quinolones				
	Estonia	-	-	-	
	Latvia	0.03	0.03	0.02	-16
	Lithuania	0.03	0.04	0.05	17
J01MB04	pipemidic acid				
	Estonia	-	-	-	
	Latvia	0.03	0.03	0.02	-16
	Lithuania	0.03	0.04	0.05	17
J01X	OTHER ANTIBACTERIALS				
	Estonia	0.92	0.89	0.86	-3
	Latvia	0.96	0.92	0.89	-3
	Lithuania	1.83	1.55	1.61	4
J01XA	Glycopeptide antibacterials				
	Estonia	0.02	0.02	0.02	24
	Latvia	0.02	0.02	0.02	4
	Lithuania	0.03	0.03	0.04	12
J01XA01	vancomycin				
	Estonia	0.02	0.02	0.02	24
	Latvia	0.02	0.02	0.02	4
	Lithuania	0.03	0.03	0.04	12
J01XB	Polymyxins				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J01XB01	colistin				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J01XC	Steroid antibacterials				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J01XC01	fusidic acid				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J01XD	Imidazole derivatives				
	Estonia	0.31	0.29	0.24	-17
	Latvia	0.15	0.15	0.14	-6
	Lithuania	0.24	0.24	0.32	33
J01XD01	metronidazole				
	Estonia	0.31	0.29	0.24	-17
	Latvia	0.15	0.15	0.14	-6
	Lithuania	0.24	0.24	0.32	33
J01XE	Nitrofuran derivatives				
	Estonia	0.59	0.57	0.58	3
	Latvia	0.75	0.71	0.70	-2
	Lithuania	1.52	1.24	1.21	-2

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J01XE01	nitrofurantoin				
	Estonia	0.59	0.57	0.58	3
	Latvia	0.27	0.18	0.13	-28
	Lithuania	1.52	1.24	1.21	-2
J01XE03	furazidin				
	Estonia	-	-	-	
	Latvia	0.47	0.53	0.57	8
	Lithuania	-	-	-	
J01XX	Other antibacterials				
	Estonia	<0.01	0.01	0.01	26
	Latvia	0.04	0.04	0.03	-19
	Lithuania	0.03	0.04	0.04	5
J01XX01	fosfomycin				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	<0.01	<0.01	
J01XX07	nitroxoline				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	0.03	0.03	0.02	-23
	Lithuania	0.02	0.03	0.03	-7
J01XX08	linezolid				
	Estonia	0.01	0.01	0.01	13
	Latvia	0.01	0.01	0.01	-9
	Lithuania	0.01	0.01	0.01	57
J01XX09	daptomycin				
	Estonia	<0.01	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J02	ANTIMYCOTICS FOR SYSTEMIC USE				
	Estonia	0.36	0.35	0.34	-3
	Latvia	0.32	0.33	0.35	7
	Lithuania	0.21	0.21	0.23	12
J02A	ANTIMYCOTICS FOR SYSTEMIC USE				
	Estonia	0.36	0.35	0.34	-3
	Latvia	0.32	0.33	0.35	7
	Lithuania	0.21	0.21	0.23	12
J02AA	Antibiotics				
	Estonia	0.01	0.01	0.01	5
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
J02AA01	amphotericin B				
	Estonia	0.01	0.01	0.01	5
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
J02AC	Triazole derivatives				
	Estonia	0.34	0.34	0.33	-4
	Latvia	0.32	0.33	0.35	6
	Lithuania	0.20	0.20	0.23	11
J02AC01	fluconazole				
	Estonia	0.16	0.16	0.15	-3
	Latvia	0.16	0.16	0.16	-2
	Lithuania	0.14	0.14	0.15	5

Consumption of antibacterials for systemic use medicines in Lithuania

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The consumption trends of antibiotics in Lithuania did not change that much during the period of 2010–2018. In 2010, all antibacterials used systemically had 18.57 DDD/1000 people and in 2018 – 20.192 DDD/1000 people. The data also remained the same since 2015.

There are not lots of guidelines, which can be used to treat infectious diseases in Lithuania. The infectious diseases which are treated according to the guidelines in Lithuania are community-acquired pneumonia for children and adults, gonococcal infection, syphilis, pyelonephritis for children and adults, and the complications of cystic fibrosis. Most of these guidelines are used for a longer time than 5 years, so the consumption trends might not have an association with the use of guidelines on infectious diseases.

The penicillins with extended spectrum remains to be mostly consumed group of antibiotics since 2010 to 2018 (7.71 -> 8.03 DDD/1000 people). The most used antibiotic from the earlier mentioned group in our country is amoxicillin (6.63 -> 7.76 DDD/1000 people) is prescribed and used to treat complications of viral infections and quite often prescribed too soon because there is a problem that patients have difficulty to believe that viral infections are only treated symptomatically and there is no need of antibiotics.

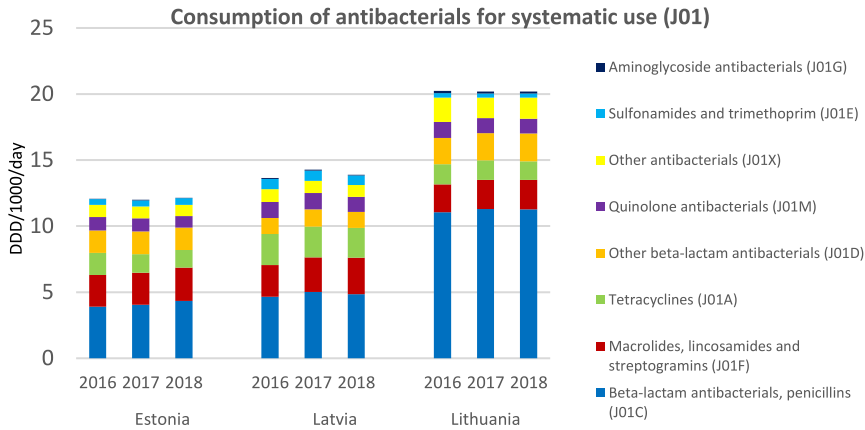
Since 2015 the consumption of cephalosporins continues to expand (1.91 -> 2.12 DDD/1000 people), the most consumed antibiotic from this group remains cefuroxime, which had 0.62 DDD/1000 people in 2010, 1.2 DDD/1000 people in 2015 and 1.43 DDD/1000 people in 2018. It might be because second-generation cephalosporins are one of the first choices when treating infections. Cefuroxime is reimbursed to treat complications of cystic fibrosis, community-acquired pneumonia, bronchiectasis, this reimbursement manner did not change in the last 3 years, so the consumption trend cannot be explained confidently.

The use of macrolides are also expanding, while the 1.91 DDD/1000 people was used in 2010, the 2.23 DDD/1000 people was used in 2018. The most consumed antibiotic from this group was clarithromycin with 1.43 DDD/1000 people in 2010 and 1.712 DDD/1000 people in 2018. Clarithromycin is reimbursed for cystic fibrosis, community-acquired pneumonia, bronchiectasis, this reimbursement manner did not change in the last 3 years, so the consumption trend cannot be explained. Having in mind that azithromycin is also reimbursed for the same indications and it is not as widely used as clarithromycin.

The consumption of aminoglycosides continues to decrease (0.3 -> 0.127 DDD/1000 people in 2010 and in 2018, respectively).

Only tobramycin and gentamycin are in the reimbursement list but according to most guidelines they are mainly used in children infections, such as pyelonephritis or pneumonia. These antibiotics may be used in hospitals, so the real consumption of aminoglycosides might not be seen. The decrease of consumption of metronidazole is also seen since 2010 (1.03 -> 0.32 DDD/1000 people).

The existing guidelines and the antibiotics in the reimbursement list are those which are consumed the most over the years in Lithuania.



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J02AC02	itraconazole				
	Estonia	0.16	0.16	0.15	-6
	Latvia	0.15	0.16	0.18	13
	Lithuania	0.06	0.06	0.07	23
J02AC03	voriconazole				
	Estonia	0.01	0.01	0.01	9
	Latvia	<0.01	<0.01	0.01	63
	Lithuania	<0.01	<0.01	0.01	100
J02AC04	posaconazole				
	Estonia	0.02	0.01	0.01	13
	Latvia	-	-	-	
	Lithuania	-	-	-	
J02AX	Other antimycotics for systemic use				
	Estonia	0.01	0.01	0.01	13
	Latvia	-	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
J02AX04	caspofungin				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
J02AX05	micafungin				
	Estonia	<0.01	<0.01	-	
	Latvia	-	-	-	
	Lithuania	<0.01	<0.01	<0.01	
J02AX06	anidulafungin				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	<0.01	<0.01	
	Lithuania	-	-	-	
J04	ANTIMYCOBACTERIALS				
	Estonia	0.32	0.31	0.30	-4
	Latvia	0.44	0.35	0.31	-10
	Lithuania	0.61	0.56	0.49	-12
J04A	DRUGS FOR TREATMENT OF TUBERCULOSIS				
	Estonia	0.30	0.29	0.29	-3
	Latvia	0.44	0.35	0.31	-10
	Lithuania	0.61	0.56	0.49	-12

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J04AA	Aminosalicilic acid and derivatives				
	Estonia	0.01	-	<0.01	
	Latvia	0.02	0.01	<0.01	-86
	Lithuania	-	0.04	0.04	-10
J04AA01	4-aminosalicylic acid				
	Estonia	<0.01	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	0.04	0.04	-10
J04AA02	sodium aminosalicylate				
	Estonia	0.01	-	-	
	Latvia	0.02	0.01	<0.01	-86
	Lithuania	-	-	-	
J04AB	Antibiotics				
	Estonia	0.03	0.06	0.06	-7
	Latvia	0.17	0.13	0.12	-8
	Lithuania	0.24	0.20	0.19	-50
J04AB01	cycloserine				
	Estonia	0.01	0.02	0.01	-28
	Latvia	-	-	-	
	Lithuania	-	-	-	
J04AB02	rifampicin				
	Estonia	0.01	0.04	0.03	-33
	Latvia	0.17	0.13	0.12	-8
	Lithuania	0.17	<0.01	<0.01	
J04AB04	rifabutin				
	Estonia	-	<0.01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J04AB05	rifapentine				
	Estonia	-	-	0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J04AB30	capreomycin				
	Estonia	0.01	-	0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J04AC	Hydrazides				
	Estonia	0.03	0.10	0.07	-29
	Latvia	-	-	-	
	Lithuania	-	-	-	
J04AC01	isoniazid				
	Estonia	0.03	0.10	0.07	-29
	Latvia	-	-	-	
	Lithuania	-	-	-	
J04AD	Thiocarbamide derivatives				
	Estonia	-	0.02	0.02	16
	Latvia	0.02	0.02	0.01	-16
	Lithuania	0.02	0.06	0.06	3
J04AD01	protionamide				
	Estonia	-	0.02	0.02	16
	Latvia	0.02	0.02	0.01	-16
	Lithuania	0.02	0.06	0.06	3

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J04AK	Other drugs for treatment of tuberculosis				
	Estonia	0.15	0.11	0.08	-25
	Latvia	0.23	0.19	0.18	-8
	Lithuania	0.35	0.39	0.35	-10
J04AK01	pyrazinamide				
	Estonia	0.06	0.04	0.04	-13
	Latvia	0.09	0.05	0.06	5
	Lithuania	0.21	0.21	0.17	-20
J04AK02	ethambutol				
	Estonia	0.07	0.07	0.04	-49
	Latvia	0.13	0.12	0.10	-20
	Lithuania	0.12	0.17	0.17	-1
J04AK05	bedaquiline				
	Estonia	0.01	-	0.01	
	Latvia	0.01	0.01	0.01	103
	Lithuania	0.01	0.01	0.01	71
J04AK06	delamanid				
	Estonia	0.01	-	0.01	
	Latvia	<0.01	0.01	0.01	-7
	Lithuania	-	-	-	
J04AM	Combinations of drugs for treatment of tuberculosis				
	Estonia	0.08	-	0.05	
	Latvia	-	-	-	
	Lithuania	0.08	0.07	0.04	-41
J04AM02	rifampicin and isoniazid				
	Estonia	0.08	-	0.05	
	Latvia	-	-	-	
	Lithuania	0.08	0.07	0.04	-41
J04B	DRUGS FOR TREATMENT OF LEPRO				
	Estonia	0.02	0.02	0.02	-25
	Latvia	-	-	-	
	Lithuania	-	-	-	
J04BA	Drugs for treatment of lepra				
	Estonia	0.02	0.02	0.02	-25
	Latvia	-	-	-	
	Lithuania	-	-	-	
J04BA01	clofazimine				
	Estonia	-	<0.01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J04BA02	dapsone				
	Estonia	0.02	0.02	0.02	-8
	Latvia	-	-	-	
	Lithuania	-	-	-	
J05	ANTIVIRALS FOR SYSTEMIC USE				
	Estonia	5.48	6.29	6.78	8
	Latvia	2.40	2.42	2.72	12
	Lithuania	0.64	0.66	0.94	43
J05A	DIRECT ACTING ANTIVIRALS				
	Estonia	5.48	6.29	6.78	8
	Latvia	2.40	2.42	2.72	12
	Lithuania	0.64	0.66	0.94	43

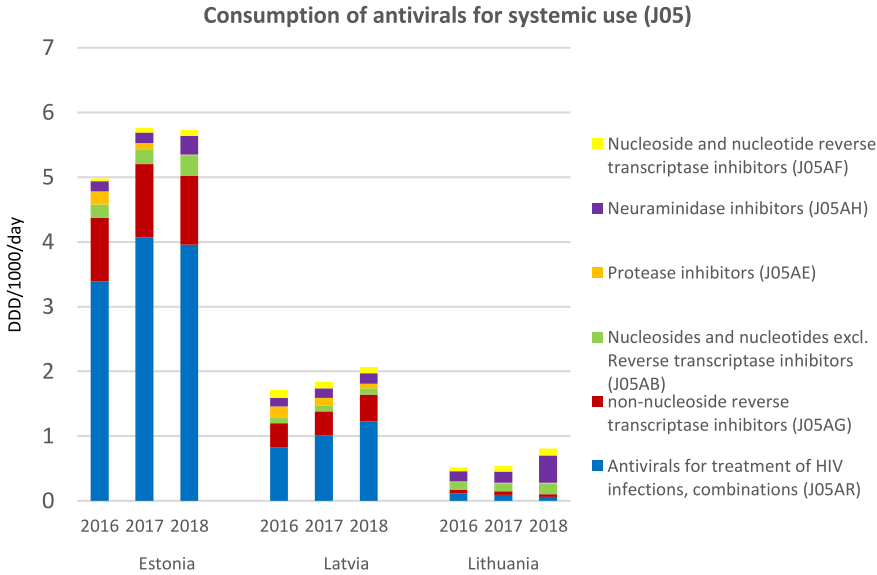
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J05AB	Nucleosides and nucleotides excl. reverse transcriptase inhibitors				
	Estonia	0.21	0.23	0.32	38
	Latvia	0.09	0.09	0.10	9
	Lithuania	0.12	0.12	0.17	41
J05AB01	aciclovir				
	Estonia	0.06	0.07	0.13	97
	Latvia	0.07	0.07	0.08	14
	Lithuania	0.08	0.08	0.12	52
J05AB06	ganciclovir				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	<0.01	<0.01	<0.01	
J05AB09	Famciclovir				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J05AB11	valaciclovir				
	Estonia	0.14	0.16	0.18	12
	Latvia	0.01	0.01	0.01	12
	Lithuania	0.03	0.03	0.04	24
J05AB12	cidofovir				
	Estonia	<0.01	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J05AB14	valganciclovir				
	Estonia	0.01	0.01	0.01	84
	Latvia	0.01	0.01	0.01	-35
	Lithuania	0.02	0.01	0.01	17
J05AC	Cyclic amines				
	Estonia	-	-	-	
	Latvia	0.23	0.10	0.06	-41
	Lithuania	-	-	-	
J05AC02	rimantadine				
	Estonia	-	-	-	
	Latvia	0.23	0.10	0.06	-41
	Lithuania	-	-	-	
J05AD	Phosphonic acid derivatives				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J05AD01	foscarnet				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J05AE	Protease inhibitors				
	Estonia	0.20	0.10	<0.01	-98
	Latvia	0.17	0.12	0.07	-44
	Lithuania	<0.01	0.01	0.01	-67
J05AE01	saquinavir				
	Estonia	-	-	-	
	Latvia	0.01	0.01	-	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J05AE03	ritonavir				
	Estonia	0.02	0.01	<0.01	-99
	Latvia	0.01	0.01	<0.01	-31
	Lithuania	<0.01	<0.01	-	
J05AE07	fosamprenavir				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
J05AE08	atazanavir				
	Estonia	-	-	-	
	Latvia	0.10	0.09	0.06	-32
	Lithuania	-	-	-	
J05AE09	tipranavir				
	Estonia	-	-	-	
	Latvia	<0.01	-	-	
	Lithuania	-	-	-	
J05AE10	darunavir				
	Estonia	0.18	0.09	<0.01	-98
	Latvia	0.05	0.02	<0.01	-86
	Lithuania	0.01	0.01	<0.01	-60
J05AF	Nucleoside and nucleotide reverse transcriptase inhibitors				
	Estonia	0.04	0.07	0.09	34
	Latvia	0.12	0.10	0.10	3
	Lithuania	0.06	0.09	0.11	21
J05AF01	zidovudine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J05AF05	lamivudine				
	Estonia	0.01	0.01	0.01	9
	Latvia	0.04	0.04	0.04	9
	Lithuania	0.02	0.02	0.01	-20
J05AF06	abacavir				
	Estonia	0.01	0.01	0.01	12
	Latvia	0.03	0.02	0.02	-21
	Lithuania	-	-	-	
J05AF07	tenofovir disoproxil				
	Estonia	-	<0.01	<0.01	
	Latvia	0.06	0.04	0.05	9
	Lithuania	<0.01	<0.01	<0.01	
J05AF08	adefovir dipivoxil				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	-	<0.01	<0.01	
J05AF10	entecavir				
	Estonia	0.02	0.05	0.07	40
	Latvia	-	-	-	
	Lithuania	0.04	0.07	0.09	28
J05AG	Non-nucleoside reverse transcriptase inhibitors				
	Estonia	0.98	1.13	1.06	-6
	Latvia	0.37	0.37	0.41	13
	Lithuania	0.06	0.06	0.04	-33

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J05AG01	nevirapine				
	Estonia	0.02	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
J05AG03	efavirenz				
	Estonia	0.65	0.61	0.43	-30
	Latvia	0.37	0.35	0.37	6
	Lithuania	0.06	0.06	0.04	-33
J05AG04	etravirine				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
J05AG05	rilpivirine				
	Estonia	0.31	0.52	0.63	22
	Latvia	-	0.01	0.04	194
	Lithuania	-	-	-	
J05AH	Neuraminidase inhibitors				
	Estonia	0.16	0.16	0.29	77
	Latvia	0.13	0.15	0.16	7
	Lithuania	0.16	0.17	0.42	147
J05AH01	zanamivir				
	Estonia	<0.01	<0.01	-	
	Latvia	<0.01	-	-	
	Lithuania	0.03	-	-	
J05AH02	oseltamivir				
	Estonia	0.16	0.16	0.29	77
	Latvia	0.13	0.15	0.16	7
	Lithuania	0.13	0.17	0.42	147
J05AP	Antivirals for treatment of HCV infections				
	Estonia	0.32	0.19	0.16	-19
	Latvia	0.28	0.26	0.21	-21
	Lithuania	0.10	0.09	0.04	-51
J05AP01	ribavirin				
	Estonia	0.11	0.05	0.01	-78
	Latvia	0.19	0.13	0.04	-72
	Lithuania	0.06	0.05	0.02	-48
J05AP03	boceprevir				
	Estonia	<0.01	-	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J05AP05	simeprevir				
	Estonia	<0.01	-	-	
	Latvia	0.04	0.01	-	
	Lithuania	-	-	-	
J05AP08	sofosbuvir				
	Estonia	-	-	-	
	Latvia	<0.01	-	-	
	Lithuania	-	-	-	
J05AP09	dasabuvir				
	Estonia	0.10	0.05	0.01	-79
	Latvia	0.03	0.06	<0.01	-98
	Lithuania	0.03	0.04	0.02	-54

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J05AP53	ombitasvir, paritaprevir and ritonavir				
	Estonia	0.10	0.05	0.01	-79
	Latvia	0.03	0.06	<0.01	-98
	Lithuania	-	-	-	
J05AP54	elbasvir and grazoprevir				
	Estonia	-	0.04	0.04	2
	Latvia	-	-	-	
	Lithuania	-	-	-	
J05AP55	sofosbuvir and velpatasvir				
	Estonia	-	-	0.01	
	Latvia	-	-	0.17	
	Lithuania	-	-	-	
J05AP57	glecaprevir and pibrentasvir				
	Estonia	-	-	0.07	
	Latvia	-	-	-	
	Lithuania	-	-	-	
J05AR	Antivirals for treatment of HIV infections, combinations				
	Estonia	3.39	4.07	3.96	-3
	Latvia	0.83	1.01	1.23	22
	Lithuania	0.11	0.09	0.06	-26
J05AR01	zidovudine and lamivudine				
	Estonia	0.24	0.10	0.01	-91
	Latvia	0.14	0.10	0.07	-35
	Lithuania	-	-	-	
J05AR02	lamivudine and abacavir				
	Estonia	1.13	1.21	1.07	-11
	Latvia	0.39	0.39	0.44	12
	Lithuania	-	-	-	
J05AR03	tenofovir disoproxil and emtricitabine				
	Estonia	1.01	1.44	1.57	9
	Latvia	0.12	0.20	0.31	50
	Lithuania	-	-	-	
J05AR06	emtricitabine, tenofovir disoproxil and efavirenz				
	Estonia	-	-	-	
	Latvia	-	-	0.01	
	Lithuania	-	-	-	
J05AR08	emtricitabine, tenofovir disoproxil and rilpivirine				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	-	
	Lithuania	-	-	-	
J05AR09	emtricitabine, tenofovir disoproxil, elvitegravir and cobicistat				
	Estonia	-	0.03	0.03	4
	Latvia	-	-	-	
	Lithuania	-	-	-	
J05AR10	lopinavir and ritonavir				
	Estonia	0.58	0.29	<0.01	-100
	Latvia	0.09	0.05	0.03	-41
	Lithuania	0.11	0.09	0.06	-26
J05AR13	lamivudine, abacavir and dolutegravir				
	Estonia	-	-	0.12	
	Latvia	0.04	0.13	0.21	66
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
J05AR14	darunavir and cobicistat				
	Estonia	0.44	1.00	1.15	15
	Latvia	0.05	0.13	0.17	26
	Lithuania	-	-	-	
J05AR21	dolutegravir and rilpivirine				
	Estonia	-	-	-	
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	
J05AX	Other antivirals				
	Estonia	0.18	0.33	0.90	169
	Latvia	0.18	0.24	0.39	63
	Lithuania	0.02	0.04	0.09	119
J05AX05	inosine pranobex				
	Estonia	-	-	-	
	Latvia	0.04	0.07	0.08	18
	Lithuania	0.01	0.02	0.03	44
J05AX07	enfuvirtide				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	-	
	Lithuania	-	-	-	
J05AX08	raltegravir				
	Estonia	0.13	0.25	0.83	229
	Latvia	0.06	0.08	0.18	130
	Lithuania	0.01	0.01	0.04	255
J05AX09	maraviroc				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
J05AX12	dolutegravir				
	Estonia	0.05	0.08	0.07	-9
	Latvia	0.08	0.09	0.13	41
	Lithuania	<0.01	0.01	0.03	107



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
L	ANTINEOPLASTIC AND IMMUNOMODULATING AGENTS				
	Estonia	10.43	10.80	11.38	5
	Latvia	5.43	5.88	6.02	2
	Lithuania	6.59	7.18	7.73	8
L02	ENDOCRINE THERAPY				
	Estonia	4.40	4.42	4.56	3
	Latvia	3.38	3.63	3.67	1
	Lithuania	3.97	4.41	4.47	2
L02A	HORMONES AND RELATED AGENTS				
	Estonia	0.44	0.50	0.54	7
	Latvia	1.40	1.51	1.44	-4
	Lithuania	1.59	1.71	1.79	5
L02AB	Progestogens				
	Estonia	0.01	0.01	0.01	-38
	Latvia	-	-	-	
	Lithuania	0.30	0.46	0.54	18
L02AB01	megestrol				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.30	0.46	0.54	18
L02AB02	medroxyprogesterone				
	Estonia	0.01	0.01	0.01	-38
	Latvia	-	-	-	
	Lithuania	-	-	-	
L02AE	Gonadotropin releasing hormone analogues				
	Estonia	0.43	0.49	0.53	8
	Latvia	1.40	1.51	1.44	-4
	Lithuania	1.29	1.25	1.25	
L02AE01	buserelin				
	Estonia	0.01	0.01	0.01	-13
	Latvia	-	-	-	
	Lithuania	-	-	-	
L02AE02	leuprorelin				
	Estonia	-	-	-	
	Latvia	0.23	0.35	0.33	-6
	Lithuania	0.13	0.01	0.03	136
L02AE03	goserelin				
	Estonia	0.10	0.12	0.13	8
	Latvia	0.19	0.23	0.16	-31
	Lithuania	0.23	0.25	0.20	-21
L02AE04	triptorelin				
	Estonia	0.32	0.36	0.39	9
	Latvia	0.99	0.93	0.96	3
	Lithuania	0.94	1.00	1.03	3
L02B	HORMONE ANTAGONISTS AND RELATED AGENTS				
	Estonia	3.96	3.92	4.03	3
	Latvia	1.97	2.12	2.23	5
	Lithuania	2.38	2.70	2.68	
L02BA	Anti-estrogens				
	Estonia	0.77	0.80	0.84	5
	Latvia	1.06	1.10	1.08	-2
	Lithuania	1.53	1.77	1.73	-2

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
L02BA01	tamoxifen				
	Estonia	0.64	0.64	0.68	7
	Latvia	1.06	1.10	1.08	-2
	Lithuania	1.44	1.65	1.59	-4
L02BA03	fulvestrant				
	Estonia	0.13	0.16	0.16	1
	Latvia	-	-	-	
	Lithuania	0.09	0.12	0.14	18
L02BB	Anti-androgens				
	Estonia	1.69	1.52	1.54	1
	Latvia	0.30	0.36	0.41	11
	Lithuania	0.23	0.21	0.19	-7
L02BB01	flutamide				
	Estonia	-	-	-	
	Latvia	0.04	0.04	0.06	39
	Lithuania	-	-	-	
L02BB03	bicalutamide				
	Estonia	1.69	1.52	1.54	1
	Latvia	0.25	0.32	0.35	8
	Lithuania	0.23	0.21	0.19	-7
L02BB04	enzalutamide				
	Estonia	<0.01	<0.01	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
L02BG	Aromatase inhibitors				
	Estonia	1.45	1.54	1.59	3
	Latvia	0.61	0.66	0.71	7
	Lithuania	0.62	0.72	0.77	6
L02BG03	anastrozole				
	Estonia	0.47	0.53	0.57	8
	Latvia	0.52	0.56	0.59	5
	Lithuania	0.32	0.39	0.43	11
L02BG04	letrozole				
	Estonia	0.85	0.88	0.86	-1
	Latvia	0.05	0.06	0.06	13
	Lithuania	0.12	0.13	0.15	9
L02BG06	exemestane				
	Estonia	0.14	0.13	0.15	14
	Latvia	0.04	0.05	0.06	23
	Lithuania	0.14	0.14	0.12	-10
L02BX	Other hormone antagonists and related agents				
	Estonia	0.05	0.05	0.06	7
	Latvia	<0.01	<0.01	0.04	4388
	Lithuania	0.05	0.07	0.07	3
L02BX03	abiraterone				
	Estonia	0.05	0.05	0.06	7
	Latvia	<0.01	<0.01	0.04	4388
	Lithuania	0.05	0.07	0.07	3
L03	IMMUNOSTIMULANTS				
	Estonia	0.95	0.86	0.77	-11
	Latvia	0.80	0.84	0.71	-16
	Lithuania	0.89	0.77	0.86	13

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
L03A	IMMUNOSTIMULANTS				
	Estonia	0.95	0.86	0.77	-11
	Latvia	0.80	0.84	0.71	-16
	Lithuania	0.89	0.77	0.86	13
L03AA	Colony stimulating factors				
	Estonia	0.05	0.06	0.08	29
	Latvia	0.10	0.11	0.11	4
	Lithuania	0.11	0.11	0.37	242
L03AA02	filgrastim				
	Estonia	0.03	0.04	0.05	22
	Latvia	0.02	0.03	0.03	
	Lithuania	0.09	0.10	0.36	275
L03AA10	lenograstim				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	<0.01	<0.01	<0.01	
L03AA13	pegfilgrastim				
	Estonia	0.02	0.02	0.03	42
	Latvia	0.07	0.06	0.07	12
	Lithuania	0.01	0.01	0.01	-13
L03AA14	lipegfilgrastim				
	Estonia	-	-	-	
	Latvia	0.01	0.01	0.01	-21
	Lithuania	<0.01	<0.01	<0.01	
L03AB	Interferons				
	Estonia	0.75	0.66	0.56	-15
	Latvia	0.63	0.66	0.52	-20
	Lithuania	0.66	0.53	0.37	-31
L03AB01	interferon alfa natural				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
L03AB03	interferon gamma				
	Estonia	<0.01	-	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
L03AB04	interferon alfa-2a				
	Estonia	0.03	0.04	0.03	-9
	Latvia	0.08	0.11	0.10	-15
	Lithuania	-	-	-	
L03AB05	interferon alfa-2b				
	Estonia	-	-	-	
	Latvia	0.02	-	-	
	Lithuania	0.15	0.09	-	
L03AB07	interferon beta-1a				
	Estonia	0.50	0.43	0.39	-9
	Latvia	0.34	0.35	0.33	-5
	Lithuania	0.37	0.36	0.32	-11
L03AB08	interferon beta-1b				
	Estonia	0.09	0.09	0.08	-16
	Latvia	0.11	0.10	0.08	-21
	Lithuania	0.07	0.05	0.03	-40

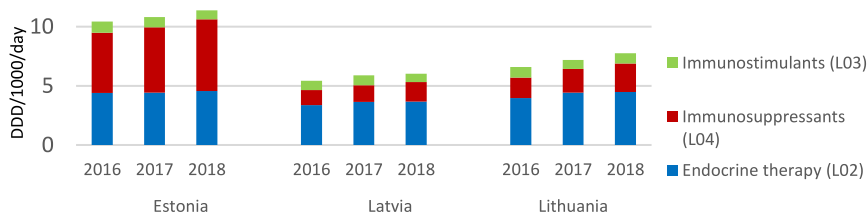
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
L03AB10	peginterferon alfa-2b				
	Estonia	0.04	0.02	<0.01	-99
	Latvia	0.03	0.01	<0.01	-99
	Lithuania	0.04	0.01	<0.01	-86
L03AB11	peginterferon alfa-2a				
	Estonia	0.08	0.04	0.01	-74
	Latvia	0.05	0.06	<0.01	-98
	Lithuania	0.04	0.02	0.01	-71
L03AB13	peginterferon alfa-2a				
	Estonia	0.01	0.05	0.05	10
	Latvia	0.01	0.02	0.02	-1
	Lithuania	-	0.01	0.01	50
L03AX	Other immunostimulants				
	Estonia	0.15	0.14	0.13	-9
	Latvia	0.07	0.08	0.08	-5
	Lithuania	0.12	0.13	0.13	2
L03AX03	BCG vaccine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.04	0.05	0.05	4
L03AX13	glatiramer acetate				
	Estonia	0.14	0.14	0.12	-9
	Latvia	0.07	0.08	0.08	-6
	Lithuania	0.08	0.08	0.08	1
L03AX15	mifamurtide				
	Estonia	<0.01	-	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
L03AX16	plerixafor				
	Estonia	-	<0.01	-	
	Latvia	-	<0.01	<0.01	
	Lithuania	-	-	-	
L04	IMMUNOSUPPRESSANTS				
	Estonia	5.08	5.51	6.04	10
	Latvia	1.25	1.40	1.63	16
	Lithuania	1.73	2.01	2.42	20
L04A	IMMUNOSUPPRESSANTS				
	Estonia	5.08	5.51	6.04	10
	Latvia	1.25	1.40	1.63	16
	Lithuania	1.73	2.01	2.42	20
L04AA	Selective immunosuppressants				
	Estonia	0.83	0.92	1.00	9
	Latvia	0.44	0.46	0.51	11
	Lithuania	0.39	0.43	0.47	11
L04AA04	antithymocyte immunoglobulin (rabbit)				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
L04AA06	mycophenolic acid				
	Estonia	0.24	0.26	0.28	7
	Latvia	0.21	0.19	0.19	3
	Lithuania	0.25	0.26	0.26	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
L04AA10	sirolimus				
	Estonia	0.01	0.01	0.01	-11
	Latvia	0.01	0.01	0.01	-14
	Lithuania	0.01	0.01	0.01	
L04AA13	leflunomide				
	Estonia	0.43	0.45	0.50	9
	Latvia	0.19	0.21	0.23	9
	Lithuania	0.06	0.06	0.06	5
L04AA18	everolimus				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
L04AA23	natalizumab				
	Estonia	0.02	0.02	0.02	9
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	0.02	43
L04AA24	abatacept				
	Estonia	0.01	0.01	0.01	32
	Latvia	0.01	0.01	0.01	-8
	Lithuania	-	-	-	
L04AA25	eculizumab				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
L04AA26	belimumab				
	Estonia	<0.01	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	<0.01	<0.01	
L04AA27	 fingolimod				
	Estonia	0.02	0.02	0.02	-8
	Latvia	0.02	0.02	0.02	38
	Lithuania	0.05	0.06	0.07	14
L04AA31	teriflunomide				
	Estonia	0.07	0.11	0.12	12
	Latvia	-	0.01	0.02	222
	Lithuania	0.01	0.02	0.04	110
L04AA33	vedolizumab				
	Estonia	0.01	0.02	0.03	17
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	
L04AA34	alemtuzumab				
	Estonia	0.01	0.01	0.01	39
	Latvia	<0.01	-	<0.01	
	Lithuania	-	-	-	
L04AA36	ocrelizumab				
	Estonia	-	-	-	
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	
L04AB	Tumor necrosis factor alpha (TNF-) inhibitors				
	Estonia	0.77	0.87	1.00	15
	Latvia	0.32	0.45	0.52	17
	Lithuania	0.28	0.41	0.61	51

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
L04AB01	etanercept				
	Estonia	0.13	0.15	0.18	21
	Latvia	0.12	0.16	0.15	-2
	Lithuania	0.02	0.01	0.19	1243
L04AB02	infliximab				
	Estonia	0.37	0.44	0.50	16
	Latvia	0.06	0.09	0.10	9
	Lithuania	0.22	0.34	0.35	2
L04AB04	adalimumab				
	Estonia	0.17	0.19	0.23	18
	Latvia	0.14	0.20	0.27	36
	Lithuania	0.04	0.05	0.08	57
L04AB05	certolizumab pegol				
	Estonia	0.01	0.01	0.01	
	Latvia	-	-	-	
	Lithuania	<0.01	<0.01	-	
L04AB06	golimumab				
	Estonia	0.09	0.08	0.08	-1
	Latvia	0.01	<0.01	<0.01	
	Lithuania	-	-	-	
L04AC	Interleukin inhibitors				
	Estonia	0.12	0.19	0.26	33
	Latvia	0.05	0.07	0.10	47
	Lithuania	0.04	0.05	0.06	20
L04AC02	basiliximab				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
L04AC03	anakinra				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	<0.01	<0.01	
L04AC05	ustekinumab				
	Estonia	0.04	0.09	0.13	47
	Latvia	<0.01	<0.01	0.03	688
	Lithuania	0.02	0.01	0.01	-57
L04AC07	tocilizumab				
	Estonia	0.07	0.07	0.08	14
	Latvia	0.05	0.05	0.04	-22
	Lithuania	0.02	0.03	0.05	55
L04AC10	secukinumab				
	Estonia	0.02	0.03	0.04	24
	Latvia	<0.01	<0.01	0.02	189
	Lithuania	-	-	-	
L04AC14	sarilumab				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
L04AC16	Guselkumab				
	Estonia	-	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
L04AD	Calcineurin inhibitors				
	Estonia	0.39	0.43	0.46	9
	Latvia	0.32	0.30	0.30	
	Lithuania	0.28	0.33	0.34	5
L04AD01	ciclosporin				
	Estonia	0.25	0.25	0.25	-2
	Latvia	0.10	0.08	0.07	-11
	Lithuania	0.13	0.14	0.13	-5
L04AD02	tacrolimus				
	Estonia	0.14	0.17	0.22	25
	Latvia	0.22	0.22	0.23	4
	Lithuania	0.15	0.19	0.21	13
L04AX	Other immunosuppressants				
	Estonia	2.96	3.11	3.32	7
	Latvia	0.12	0.13	0.20	50
	Lithuania	0.73	0.81	0.94	16
L04AX01	azathioprine				
	Estonia	0.32	0.38	0.39	4
	Latvia	0.11	0.13	0.16	24
	Lithuania	0.18	0.20	0.22	7
L04AX02	thalidomide				
	Estonia	0.02	0.02	0.02	-16
	Latvia	-	-	-	
	Lithuania	-	-	0.03	
L04AX03	methotrexate				
	Estonia	2.57	2.65	2.74	4
	Latvia	-	-	-	
	Lithuania	0.54	0.57	0.63	10
L04AX04	lenalidomide				
	Estonia	0.04	0.05	0.05	16
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.02	0.03	56
L04AX05	pirfenidone				
	Estonia	0.01	0.01	0.02	21
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	0.01	0.01	
L04AX06	pomalidomide				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
L04AX07	dimethyl fumarate				
	Estonia	-	-	0.09	
	Latvia	<0.01	<0.01	0.04	570
	Lithuania	-	0.01	0.03	314

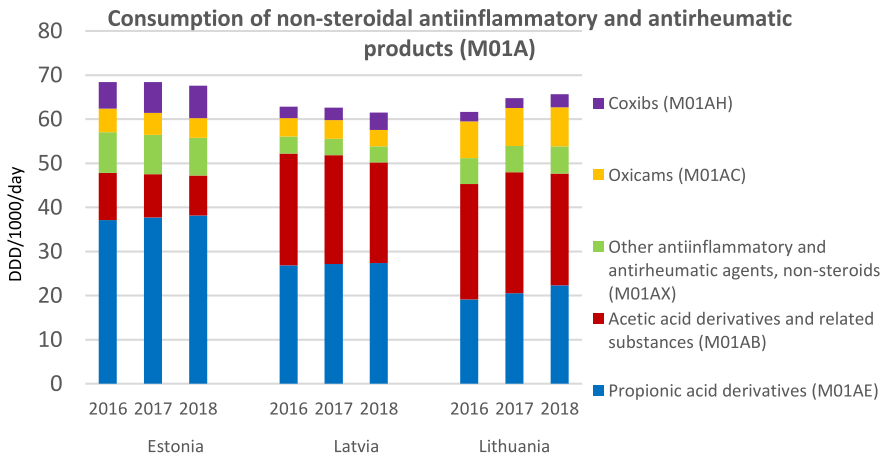
15 Consumption of antineoplastic and immunomodulating agents (L)



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
M	MUSCULO-SKELETAL SYSTEM				
	Estonia	79.30	80.43	80.69	
	Latvia	74.15	74.97	74.42	-1
	Lithuania	69.89	74.07	76.33	3
M01	ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS				
	Estonia	68.46	68.40	67.61	-1
	Latvia	62.81	62.59	61.51	-2
	Lithuania	61.69	64.80	65.71	1
M01A	ANTIINFLAMMATORY AND ANTIRHEUMATIC PRODUCTS, NON-STERIODS				
	Estonia	68.45	68.40	67.60	-1
	Latvia	62.81	62.59	61.51	-2
	Lithuania	61.68	64.78	65.69	1
M01AB	Acetic acid derivatives and related substances				
	Estonia	10.72	9.85	9.06	-8
	Latvia	25.34	24.73	22.87	-8
	Lithuania	26.18	27.43	25.34	-8
M01AB01	indometacin				
	Estonia	0.10	0.10	0.08	-18
	Latvia	0.19	0.21	0.17	-19
	Lithuania	1.15	0.97	0.98	1
M01AB05	diclofenac				
	Estonia	10.29	9.13	8.04	-12
	Latvia	20.49	19.73	18.09	-8
	Lithuania	20.64	21.67	19.61	-10
M01AB08	etodolac				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	-	0.02	0.03	58
M01AB15	ketorolac				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	1.21	1.16	1.15	-1
	Lithuania	2.58	2.59	2.44	-6
M01AB16	aceclofenac				
	Estonia	0.29	0.38	0.38	
	Latvia	1.93	2.16	2.17	1
	Lithuania	0.93	1.17	1.27	8
M01AB55	diclofenac, combinations				
	Estonia	0.05	0.25	0.57	132
	Latvia	1.51	1.47	1.29	-12
	Lithuania	0.89	1.01	1.02	1
M01AC	Oxicams				
	Estonia	5.32	4.94	4.46	-10
	Latvia	4.17	4.17	3.72	-11
	Lithuania	8.34	8.62	8.79	2
M01AC01	piroxicam				
	Estonia	0.22	0.22	0.17	-20
	Latvia	0.07	0.06	0.06	2
	Lithuania	1.22	1.28	1.36	6
M01AC05	lornoxicam				
	Estonia	0.79	0.73	0.68	-6
	Latvia	1.02	0.99	0.85	-14
	Lithuania	1.58	1.62	1.81	11

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
M01AC06	meloxicam				
	Estonia	4.31	4.00	3.61	-10
	Latvia	3.08	3.12	2.81	-10
	Lithuania	5.54	5.72	5.62	-2
M01AE	Propionic acid derivatives				
	Estonia	37.07	37.68	38.15	1
	Latvia	26.88	27.12	27.36	1
	Lithuania	19.12	20.50	22.31	9
M01AE01	ibuprofen				
	Estonia	26.26	25.82	25.85	
	Latvia	23.62	23.46	23.67	1
	Lithuania	15.25	15.05	15.74	5
M01AE02	naproxen				
	Estonia	1.80	2.10	2.17	4
	Latvia	1.74	1.77	1.68	-5
	Lithuania	1.58	1.96	2.32	18
M01AE03	ketoprofen				
	Estonia	1.54	1.66	1.58	-5
	Latvia	0.28	0.28	0.25	-11
	Lithuania	0.88	0.92	0.92	-1
M01AE17	dexketoprofen				
	Estonia	1.84	1.85	1.93	4
	Latvia	1.06	1.44	1.60	11
	Lithuania	1.80	1.86	2.39	29
M01AE51	ibuprofen, combinations				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
M01AE52	naproxen and esomeprazole				
	Estonia	5.62	6.24	6.61	6
	Latvia	0.18	0.17	0.15	-10
	Lithuania	0.61	0.71	0.94	33
M01AG	Fenamates				
	Estonia	0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
M01AG02	tolfenamic acid				
	Estonia	0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
M01AH	Coxibs				
	Estonia	6.05	6.98	7.34	5
	Latvia	2.60	2.85	3.98	40
	Lithuania	2.18	2.26	3.03	34
M01AH01	celecoxib				
	Estonia	0.63	0.68	0.69	2
	Latvia	0.41	0.53	0.32	-40
	Lithuania	0.71	0.62	0.59	-4
M01AH05	etoricoxib				
	Estonia	5.42	6.31	6.65	5
	Latvia	2.19	2.31	3.66	58
	Lithuania	1.47	1.64	2.44	48

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
M01AX	Other antiinflammatory and antirheumatic agents, non-steroids				
	Estonia	9.28	8.94	8.58	-4
	Latvia	3.84	3.73	3.58	-4
	Lithuania	5.86	5.97	6.22	4
M01AX01	nabumetone				
	Estonia	0.44	0.42	0.34	-20
	Latvia	0.01	0.01	<0.01	-33
	Lithuania	0.06	0.08	0.10	29
M01AX05	glucosamine				
	Estonia	8.84	8.52	8.24	-3
	Latvia	1.83	1.77	1.72	-3
	Lithuania	0.94	0.97	0.93	-4
M01AX17	nimesulide				
	Estonia	-	-	-	
	Latvia	2.00	1.96	1.86	-5
	Lithuania	4.85	4.92	5.19	6
M01C	SPECIFIC ANTIRHEUMATIC AGENTS				
	Estonia	0.01	0.01	0.01	-16
	Latvia	-	-	-	
	Lithuania	0.02	0.02	0.03	14
M01CC	Penicillamine and similar agents				
	Estonia	0.01	0.01	0.01	-16
	Latvia	-	-	-	
	Lithuania	0.02	0.02	0.03	14
M01CC01	penicillamine				
	Estonia	0.01	0.01	0.01	-16
	Latvia	-	-	-	
	Lithuania	0.02	0.02	0.03	14
M03	MUSCLE RELAXANTS				
	Estonia	0.89	0.90	0.92	2
	Latvia	3.19	3.29	3.36	2
	Lithuania	1.68	1.74	1.90	10
M03B	MUSCLE RELAXANTS, CENTRALLY ACTING AGENTS				
	Estonia	0.89	0.90	0.92	2
	Latvia	3.19	3.29	3.36	2
	Lithuania	1.68	1.74	1.90	10



Consumption of non-steroidal anti-inflammatory and antirheumatic medicines in Latvia in 2016–2018

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The Medicinal Product Register of Latvia includes almost 240 products belonging to the M01A group. Just over 150 of these products are currently available on the market. Approximately 30% of the available medicinal products are OTC medicines containing ibuprofen, naproxen, diclofenac, dexketoprofen or glucosamine.

Non steroidal anti inflammatory and antirheumatic medicines are often the first line treatment of acute and chronic pain, as well as inflammation.

The majority of NSAIDs inhibit COX-1 and COX-2 isoforms of the enzyme cyclooxygenase involved not only in the process of inflammation and pain, but also in the normal functioning of various organs. This explains both the therapeutic effects and adverse reactions of these medicines. In contrast, selective NSAIDs inhibit only the COX-2 isoform responsible specifically for the initiation of inflammatory processes and pain.

Cardiovascular, gastrointestinal and renal complications are characteristic for all of the medicines in the NSAID group. It has been pointed out that the widespread use of NSAIDs may be considered as a significant public health issue due to the adverse reactions of these medicines. It is known that depending on the specific medicinal product NSAIDs may increase the risk of gastrointestinal disorders 3-5 times and the cardiovascular risk may increase by one third.^{1,21} All of the NSAIDs have similar effectiveness, but different safety profiles, therefore, the choice of a specific medicinal product largely depends on individual patient risk factors.

In addition to NSAIDs, the M01A group includes also glucosamine which has approved indication for minimisation of symptoms of osteoarthritis and other joint disorders.

Based on the data in Latvia, the overall consumption of medicinal products in the M01A subgroup has remained unchanged over the last three years, with only minor changes in the consumption of specific medicines.

Ibuprofen represents approximately one third of all of the M01A medications consumed and is one of the most highly consumed medicines in Latvia in the last few years. Its consumption continues to grow on average by 2-3% per year.

¹ J. Castellsague, N. Riera-Guardia, B. Calingaert, C. Varas-Lorenzo, A. Fourrier-Reglat, F. Nicotra, et al. (2012). Individual NSAIDs and upper gastrointestinal complications: a systematic review and meta-analysis of observational studies. *Drug Saf*, 35, pp. 1127-1146

² N. Bhala, J. Emberson, A. Merhi, S. Abramson, N. Arber, J.A. Baron, et al. (2013). Vascular and upper gastrointestinal effects of non-steroidal anti-inflammatory drugs: meta-analyses of individual participant data from randomised trials. *Lancet*, 382, pp. 769-779

Its popularity may be explained by public awareness of these medicines and the wide range of OTC products available. Ibuprofen is used to treat both short-term pain, for example, headache, toothache, menstrual pain, muscle pain or postoperative pain, and chronic pain, for example, pain related to rheumatoid arthritis and osteoarthritis. The UK NICE guidelines recommend low-dose ibuprofen (up to 1200 mg per day) and naproxen (up to 1000 mg per day) as the first choice of NSAIDs.³² The data in Latvia indicates that naproxen is used rarely – 1.68 DDD/1000 inhabitants per day (in comparison, ibuprofen consumption is 23.67 DDD/1000 inhabitants per day), and its consumption shows a decreasing trend. Both of these medications have similar effectiveness, but naproxen's advantage is that it has a longer duration of action and the lowest risk of cardiovascular adverse reactions among NSAIDs therefore it might be a more appropriate choice for certain populations.

Similarly, medicines containing ketoprofen or a combination of naproxen and esomeprazol had a low consumption in 2018 - 0.25 and 0.15 DDD/1000 inhabitants per day, respectively. Over the last three years there has been a decreasing trend in their consumption which may be explained by the availability and cost of these medicines. In contrast, the consumption of dexketoprofen has increased by 30% over the last three years. This may be due to the fact that in 2016 the first non prescription dexketoprofen-containing medicines received marketing authorisation. These medicines are characterised by rapid absorption and onset of action, and it is hypothesized that dexketoprofen may have a lower risk of gastrointestinal adverse reactions⁴.

Diclofenac is the second most popular product in the M01A subgroup in Latvia – in 2018 its consumption was 18.09 DDD/1000 inhabitants per day with some tendency to decrease every year. Since 2013 when the European Medicines Agency added a warning for diclofenac regarding increased risk of cardiovascular adverse events⁵ its consumption in Latvia has decreased by roughly 13%.

Consumption of other products in this group, namely indometacin, ketorolac and aceclofenac, practically has not changed over the last three years and remains relatively low in 2018 at 0.16, 1.15 and 2.16 DDD/1000 inhabitants per day, respectively. The lower popularity of these prescription medicines may be related to their access and adverse reaction profile.

During this three-year period two COX-2 inhibitors or selective NSAIDs have been consumed in Latvia – celecoxib and etoricoxib. These prescription medicines are indicated for the symptomatic treatment of inflammation and pain caused by arthritis and ankylosing spondylitis. The use of etoricoxib has increased from 2.19 in 2016 to 3.66 DDD/1000 inhabitants per day in 2018. Its consumption has tripled

³ <https://www.nice.org.uk/advice/ktt13/chapter/evidence-context>; Apskatīts: 30.05.2019

⁴ H. Gaskell, S. Derry, P.J. Wiffen, R. Moore (2017). Single dose oral ketoprofen or dexketoprofen for acute postoperative pain in adults. *Cochrane Database of Systematic Reviews*, Issue 5. Art. No.: CD007355. DOI: 10.1002/14651858.CD007355.pub3

⁵ https://www.ema.europa.eu/en/documents/referral/diclofenac-article-31-referral-new-safety-advice-diclofenac_lv.pdf; Apskatīts 30.05.2019

since 2013, and it may be related to the fact that several generic medicines entered the market in 2016, making the medicines available at a lower cost. In 2018, this was the third most popular M01A subgroup product. Advantage of COX-2 inhibitors is their lower gastrointestinal adverse reactions⁶³, but their overall consumption is several times lower compared to other NSAIDs groups. However, their increased risk for thrombosis makes them unfavourable choice for certain patient groups.

There is a steady decreasing trend in the consumption of glucosamine, nimesulide and nabumetone and it remains relatively low at 1.7, 1.6 and 0.0041 DDD/1000 inhabitants per day, respectively. The actual consumption of glucosamine might be higher because it is also available in nutritional supplements which consumption is not tracked.

We cannot draw conclusions regarding patient demographics or doses to assess safe and effective use of NSAIDs in Latvia, but such a high consumption of ibuprofen and diclofenac compared to other choices may suggest that potentially there is a room for improvement. Increasing consumption of OTC products may suggest that there might be access barriers to health services. Studies conducted elsewhere indicate number of problems associated with use of these medicines. For example, coxibs, diclofenac and nimesulide are used much more widely by elderly people than naproxen, which might be a safer option⁷ or patients tend to exceed the recommended length of therapy⁸ thus exposing themselves to avoidable adverse reactions. Taking into account the trends in consumption of these medicines, the situation in Latvia could be similar and it might be useful to monitor use of these medicines in more detail.

⁶ <https://www.ema.europa.eu/en/news/european-medicines-agency-concludes-action-cox-2-inhibitors>; Apskatīts 30.05.2019.

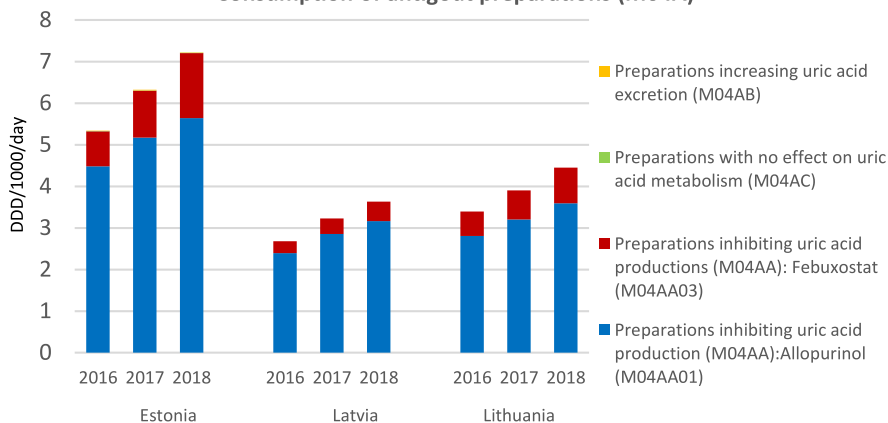
⁷ Roberto, G., Bartolini, C., Rea, F., Onder, G., Vitale, C., Trifirò, G., ... Italian Group for Appropriate Drug prescription in the Elderly (I-GrADE) (2018). NSAIDs utilization for musculoskeletal indications in elderly patients with cerebro/cardiovascular disease. *European Journal of Clinical Pharmacology*, 74(5), 637–643. doi:10.1007/s00228-018-2411-y

⁸ K.A.J. Al Khaja, S. Veeramuthu, H.A. Isa, R.P. Sequeira (2017). Prescription audit of NSAIDs and gastroprotective strategy in elderly in primary care. *Int J Risk Saf Med*. 29(1-2):57-68. doi: 10.3233/JRS-170742.

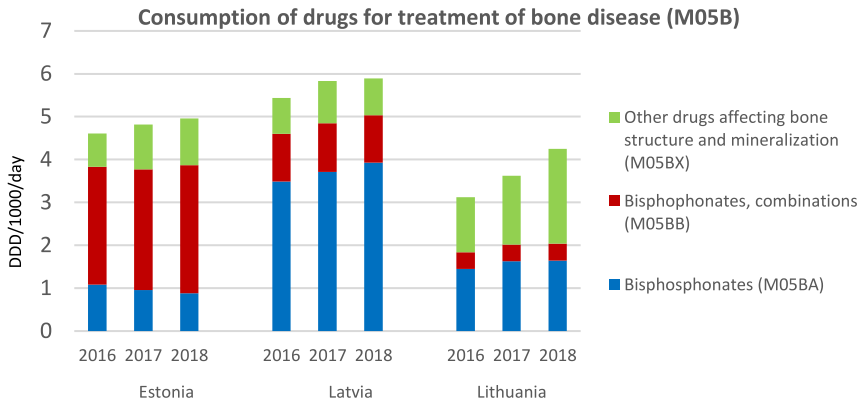
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
M03BX	Other centrally acting agents				
	Estonia	0.89	0.90	0.92	2
	Latvia	3.19	3.29	3.36	2
	Lithuania	1.68	1.74	1.90	10
M03BX01	baclofen				
	Estonia	0.16	0.17	0.17	1
	Latvia	0.20	0.23	0.24	4
	Lithuania	0.33	0.36	0.39	8
M03BX02	tizanidine				
	Estonia	0.73	0.73	0.74	2
	Latvia	0.24	0.30	0.36	18
	Lithuania	0.23	0.31	0.39	27
M03BX04	tolperisone				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	2.75	2.75	2.77	
	Lithuania	1.12	1.07	1.12	5
M04	ANTIGOUT PREPARATIONS				
	Estonia	5.34	6.31	7.22	14
	Latvia	2.68	3.23	3.63	12
	Lithuania	3.39	3.91	4.45	14
M04A	ANTIGOUT PREPARATIONS				
	Estonia	5.34	6.31	7.22	14
	Latvia	2.68	3.23	3.63	12
	Lithuania	3.39	3.91	4.45	14
M04AA	Preparations inhibiting uric acid production				
	Estonia	5.34	6.31	7.22	14
	Latvia	2.68	3.23	3.63	12
	Lithuania	3.39	3.91	4.45	14
M04AA01	allopurinol				
	Estonia	4.48	5.17	5.64	9
	Latvia	2.39	2.85	3.16	11
	Lithuania	2.81	3.20	3.59	12
M04AA03	febuxostat				
	Estonia	0.84	1.13	1.56	38
	Latvia	0.29	0.38	0.47	24
	Lithuania	0.58	0.70	0.86	22
M04AB	Preparations increasing uric acid excretion				
	Estonia	0.01	0.01	0.01	17
	Latvia	-	-	-	
	Lithuania	-	-	-	
M04AB01	probenecid				
	Estonia	<0.01	-	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
M04AB03	benzbromarone				
	Estonia	0.01	0.01	0.01	17
	Latvia	-	-	-	
	Lithuania	-	-	-	
M04AC	Preparations with no effect on uric acid metabolism				
	Estonia	<0.01	<0.01	0.01	170
	Latvia	-	-	-	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
M04AC01	colchicine				
	Estonia	<0.01	<0.01	0.01	170
	Latvia	-	-	-	
	Lithuania	-	-	-	
M05	DRUGS FOR TREATMENT OF BONE DISEASES				
	Estonia	4.62	4.82	4.95	3
	Latvia	5.44	5.83	5.89	1
	Lithuania	3.11	3.62	4.25	17
M05B	DRUGS AFFECTING BONE STRUCTURE AND MINERALIZATION				
	Estonia	4.62	4.82	4.95	3
	Latvia	5.44	5.83	5.89	1
	Lithuania	3.11	3.62	4.25	17
M05BA	Bisphosphonates				
	Estonia	1.08	0.96	0.88	-9
	Latvia	3.49	3.71	3.93	6
	Lithuania	1.45	1.63	1.64	1
M05BA02	clodronic acid				
	Estonia	-	-	-	
	Latvia	0.01	0.01	<0.01	-80
	Lithuania	-	-	-	
M05BA03	pamidronic acid				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
M05BA04	alendronic acid				
	Estonia	0.34	0.28	0.24	-12
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.22	0.24	0.27	12
M05BA06	ibandronic acid				
	Estonia	0.48	0.46	0.42	-8
	Latvia	1.27	1.36	1.42	4
	Lithuania	0.71	0.75	0.69	-8
M05BA07	risedronic acid				
	Estonia	0.25	0.22	0.21	-7
	Latvia	2.20	2.33	2.50	7
	Lithuania	0.51	0.63	0.67	7

Consumption of antigout preparations (M04A)



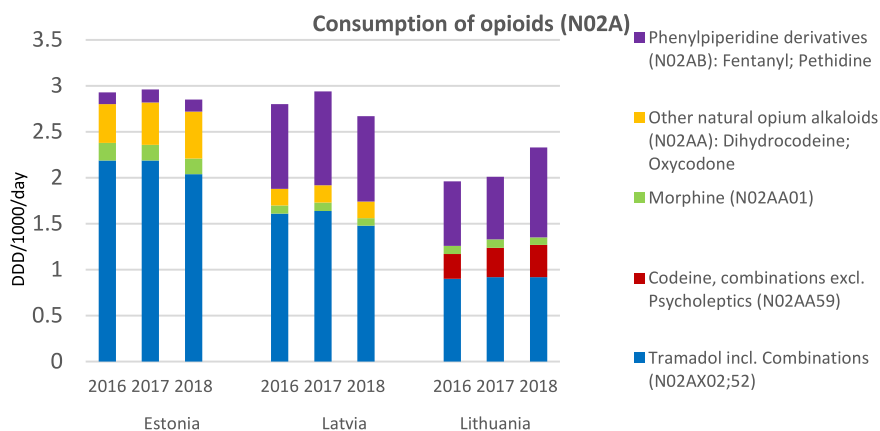
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
M05BA08	zoledronic acid				
	Estonia	0.01	0.01	0.01	-2
	Latvia	0.01	0.01	0.01	4
	Lithuania	<0.01	0.01	0.01	-17
M05BB	Bisphosphonates, combinations				
	Estonia	2.75	2.81	2.99	6
	Latvia	1.11	1.14	1.10	-4
	Lithuania	0.39	0.39	0.40	1
M05BB03	alendronic acid and colecalciferol				
	Estonia	2.75	2.81	2.99	6
	Latvia	1.11	1.14	1.10	-4
	Lithuania	0.22	0.25	0.27	10
M05BB04	risedronic acid, calcium and colecalciferol, sequential				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.16	0.15	0.13	-14
M05BX	Other drugs affecting bone structure and mineralization				
	Estonia	0.78	1.05	1.09	4
	Latvia	0.84	0.98	0.86	-12
	Lithuania	1.28	1.60	2.21	38
M05BX03	strontium ranelate				
	Estonia	0.03	0.03	-	
	Latvia	0.35	0.31	0.07	-78
	Lithuania	0.07	0.05	0.01	-84
M05BX04	denosumab				
	Estonia	0.75	1.02	1.09	7
	Latvia	0.49	0.67	0.80	19
	Lithuania	1.20	1.55	2.20	42
M09	OTHER DRUGS FOR DISORDERS OF THE MUSCULO-SKELETAL SYSTEM				
	Estonia	-	-	-	
	Latvia	0.02	0.02	0.03	14
	Lithuania	0.02	0.01	0.02	58
M09A	OTHER DRUGS FOR DISORDERS OF THE MUSCULO-SKELETAL SYSTEM				
	Estonia	-	-	-	
	Latvia	0.02	0.02	0.03	14
	Lithuania	0.02	0.01	0.02	58



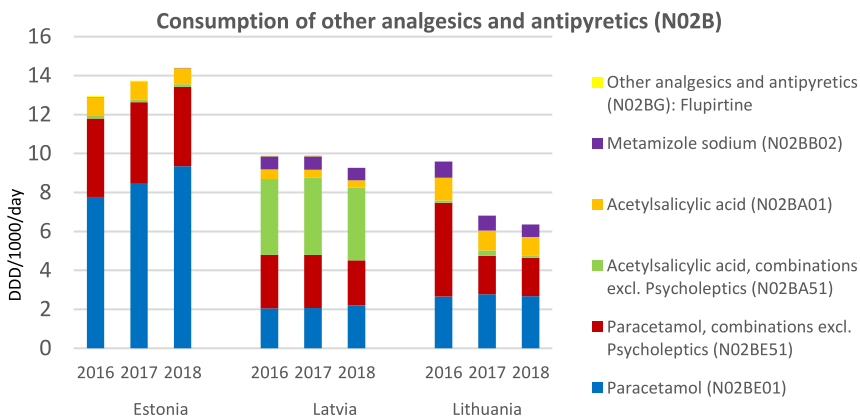
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
M09AX	Other drugs for disorders of the musculo-skeletal system				
	Estonia	-	-	-	
	Latvia	0.02	0.02	0.03	14
	Lithuania	0.02	0.01	0.02	58
M09AX01	hyaluronic acid				
	Estonia	-	-	-	
	Latvia	0.02	0.02	0.03	14
	Lithuania	0.02	0.01	0.02	58
M09AX03	ataluren				
	Estonia	-	-	-	
	Latvia	-	<0.01	<0.01	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N	NERVOUS SYSTEM				
	Estonia	118.09	123.40	128.25	4
	Latvia	98.75	104.18	103.08	-1
	Lithuania	155.14	155.62	153.61	-1
N02	ANALGESICS				
	Estonia	18.96	20.70	22.17	7
	Latvia	12.94	13.14	12.23	-7
	Lithuania	12.71	10.14	10.30	2
N02A	OPIOIDS				
	Estonia	5.33	6.22	6.94	12
	Latvia	2.82	2.95	2.68	-9
	Lithuania	2.12	2.15	2.47	15
N02AA	Natural opium alkaloids				
	Estonia	0.60	0.63	0.68	8
	Latvia	0.27	0.29	0.26	-10
	Lithuania	0.27	0.29	0.26	4
N02AA01	morphine				
	Estonia	0.19	0.17	0.17	3
	Latvia	0.09	0.09	0.08	-11
	Lithuania	0.09	0.09	0.08	-5
N02AA05	oxycodone				
	Estonia	0.33	0.36	0.41	11
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
N02AA08	dihydrocodeine				
	Estonia	0.09	0.10	0.10	2
	Latvia	0.18	0.19	0.18	-7
	Lithuania	-	-	-	
N02AA55	oxycodone and naloxone				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	-	-	
	Lithuania	-	-	-	
N02AA59	codeine, combinations excl. psycholeptics				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.27	0.32	0.35	10
N02AB	Phenylpiperidine derivatives				
	Estonia	0.13	0.14	0.13	-7
	Latvia	0.92	1.02	0.93	-8
	Lithuania	0.73	0.71	1.01	41
N02AB02	pethidine				
	Estonia	0.02	0.02	0.02	2
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.03	0.03	0.03	3
N02AB03	fentanyl				
	Estonia	0.11	0.12	0.11	-8
	Latvia	0.92	1.01	0.93	-9
	Lithuania	0.70	0.68	0.98	43
N02AE	Oripavine derivatives				
	Estonia	-	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N02AE01	buprenorphine				
	Estonia	-	<0,01	<0,01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N02AJ	Opioids in combination with non-opioid analgesics				
	Estonia	2.42	3.26	4.09	26
	Latvia	0.01	0.01	0.01	-22
	Lithuania	-	-	-	
N02AJ06	codeine and paracetamol				
	Estonia	2.40	3.03	3.50	16
	Latvia	-	-	-	
	Lithuania	-	-	-	
N02AJ13	tramadol and paracetamol				
	Estonia	0.03	0.03	0.03	-9
	Latvia	0.01	0.01	0.01	-22
	Lithuania	-	-	-	
N02AJ14	tramadol and dextetoprofen				
	Estonia	-	0.20	0.57	182
	Latvia	-	-	-	
	Lithuania	-	-	-	
N02AX	Other opioids				
	Estonia	2.19	2.19	2.04	-7
	Latvia	1.62	1.64	1.48	-10
	Lithuania	0.90	0.92	0.92	1
N02AX02	tramadol				
	Estonia	2.19	2.19	2.04	-7
	Latvia	1.61	1.64	1.48	-9
	Lithuania	0.90	0.92	0.92	1
N02AX06	tapentadol				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
N02B	OTHER ANALGESICS AND ANTIPYRETICS				
	Estonia	12.93	13.73	14.37	5
	Latvia	9.90	9.92	9.27	-7
	Lithuania	10.00	7.26	7.01	-3
N02BA	Salicylic acid and derivatives				
	Estonia	1.09	1.05	0.95	-9
	Latvia	4.38	4.36	4.12	-5
	Lithuania	1.29	1.31	1.24	-5
N02BA01	acetylsalicylic acid				
	Estonia	0.93	0.90	0.82	-10
	Latvia	0.49	0.41	0.39	-6
	Lithuania	1.17	1.02	0.96	-5
N02BA51	acetylsalicylic acid, combinations excl. psycholeptics				
	Estonia	0.16	0.15	0.14	-8
	Latvia	3.89	3.95	3.73	-5
	Lithuania	0.12	0.29	0.11	-64
N02BA71	acetylsalicylic acid, combinations with psycholeptics				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	-	-	0.18	



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N02BB	Pyrazolones				
	Estonia	<0.01	<0.01	<0.01	-11
	Latvia	0.68	0.69	0.63	-9
	Lithuania	0.84	0.77	0.65	-16
N02BB02	metamizole sodium				
	Estonia	<0.01	<0.01	<0.01	-11
	Latvia	0.68	0.69	0.63	-9
	Lithuania	0.84	0.77	0.65	-16
N02BE	Anilides				
	Estonia	11.80	12.63	13.42	6
	Latvia	4.80	4.80	4.51	-6
	Lithuania	7.85	5.16	5.12	-1
N02BE01	paracetamol				
	Estonia	7.77	8.45	9.35	11
	Latvia	2.05	2.07	2.19	5
	Lithuania	2.65	2.78	2.67	-4
N02BE51	paracetamol, combinations excl. psycholeptics				
	Estonia	4.03	4.18	4.07	-3
	Latvia	2.75	2.73	2.32	-15
	Lithuania	4.82	1.96	1.97	1
N02BE71	paracetamol, combinations with psycholeptics				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.39	0.42	0.48	13
N02BG	Other analgesics and antipyretics				
	Estonia	0.04	0.04	-	
	Latvia	0.04	0.07	0.01	-83
	Lithuania	0.01	0.01	-	
N02BG07	flupirtine				
	Estonia	0.04	0.04	-	
	Latvia	0.04	0.07	0.01	-83
	Lithuania	0.01	0.01	-	
N02C	ANTIMIGRAINE PREPARATIONS				
	Estonia	0.70	0.75	0.86	14
	Latvia	0.22	0.26	0.28	6
	Lithuania	0.59	0.74	0.82	11

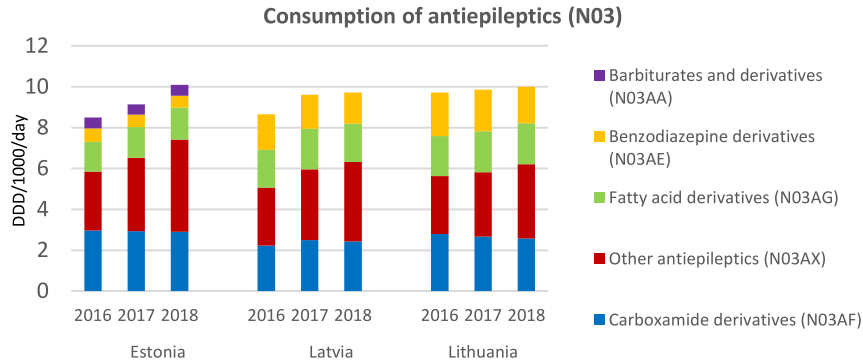


ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N02CC	Selective serotonin (5HT₁) agonists				
	Estonia	0.70	0.75	0.86	14
	Latvia	0.22	0.26	0.28	6
	Lithuania	0.59	0.74	0.82	11
N02CC01	sumatriptan				
	Estonia	0.57	0.61	0.72	17
	Latvia	0.20	0.23	0.24	6
	Lithuania	0.52	0.66	0.75	14
N02CC02	naratriptan				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	0.02	0.02	0.02	7
N02CC03	zolmitriptan				
	Estonia	0.06	0.07	0.05	-29
	Latvia	-	-	<0.01	
	Lithuania	0.02	0.02	0.01	-50
N02CC04	rizatriptan				
	Estonia	0.01	0.01	0.02	61
	Latvia	-	-	-	
	Lithuania	0.01	0.01	0.01	13
N02CC05	Almotriptan				
	Estonia	-	-	<0.01	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	0.01	0.01	
N02CC06	eletriptan				
	Estonia	-	-	-	
	Latvia	0.02	0.02	0.02	14
	Lithuania	-	-	-	
N02CC07	frovatriptan				
	Estonia	0.05	0.06	0.07	19
	Latvia	0.01	0.01	0.01	1
	Lithuania	0.03	0.03	0.03	7
N03	ANTIPILEPTICS				
	Estonia	8.56	9.20	10.15	10
	Latvia	8.65	9.61	9.72	1
	Lithuania	9.72	9.86	10.01	1

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N03A	ANTIEPILEPTICS				
	Estonia	8,56	9,20	10,15	10
	Latvia	8,65	9,61	9,72	1
	Lithuania	9,72	9,86	10,01	1
N03AA	Barbiturates and derivatives				
	Estonia	0,54	0,50	0,53	4
	Latvia	-	-	-	
	Lithuania	-	-	-	
N03AA02	phenobarbital				
	Estonia	0,49	0,45	0,47	4
	Latvia	-	-	-	
	Lithuania	-	-	-	
N03AA03	primidone				
	Estonia	0,06	0,05	0,05	6
	Latvia	-	-	-	
	Lithuania	-	-	-	
N03AB	Hydantoin derivatives				
	Estonia	0,05	0,04	0,05	3
	Latvia	-	-	-	
	Lithuania	-	-	-	
N03AB02	phenytoin				
	Estonia	0,05	0,04	0,05	3
	Latvia	-	-	-	
	Lithuania	-	-	-	
N03AD	Succinimide derivatives				
	Estonia	0,01	0,01	0,02	27
	Latvia	-	-	-	
	Lithuania	-	-	-	
N03AD01	ethosuximide				
	Estonia	0,01	0,01	0,02	27
	Latvia	-	-	-	
	Lithuania	-	-	-	
N03AE	Benzodiazepine derivatives				
	Estonia	0,65	0,61	0,58	-5
	Latvia	1,73	1,66	1,52	-8
	Lithuania	2,13	2,04	1,79	-13
N03AE01	clonazepam				
	Estonia	0,65	0,61	0,58	-5
	Latvia	1,73	1,66	1,52	-8
	Lithuania	2,13	2,04	1,79	-13
N03AF	Carboxamide derivatives				
	Estonia	2,97	2,94	2,90	-1
	Latvia	2,23	2,49	2,43	-2
	Lithuania	2,79	2,66	2,57	-3
N03AF01	carbamazepine				
	Estonia	2,15	2,12	2,10	-1
	Latvia	1,93	2,16	2,08	-4
	Lithuania	1,64	1,54	1,53	-1
N03AF02	oxcarbazepine				
	Estonia	0,83	0,82	0,81	-2
	Latvia	0,30	0,33	0,36	8
	Lithuania	1,15	1,12	1,04	-7

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N03AF03	rufinamide				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	<0.01	<0.01	<0.01	
N03AG	Fatty acid derivatives				
	Estonia	1.46	1.51	1.57	4
	Latvia	1.86	2.00	1.87	-7
	Lithuania	1.96	2.01	2.00	
N03AG01	valproic acid				
	Estonia	1.45	1.50	1.56	4
	Latvia	1.86	2.00	1.87	-7
	Lithuania	1.96	2.01	2.00	
N03AG04	vigabatrin				
	Estonia	0.01	0.01	0.01	75
	Latvia	-	-	-	
	Lithuania	-	-	-	
N03AX	Other antiepileptics				
	Estonia	2.88	3.58	4.51	26
	Latvia	2.83	3.46	3.89	13
	Lithuania	2.84	3.15	3.64	16
N03AX03	sultiame				
	Estonia	<0.01	0.01	0.02	128
	Latvia	-	-	-	
	Lithuania	-	-	-	
N03AX09	lamotrigine				
	Estonia	0.48	0.54	0.62	14
	Latvia	0.65	0.72	0.76	6
	Lithuania	0.67	0.69	0.73	6
N03AX11	topiramate				
	Estonia	0.21	0.23	0.23	3
	Latvia	0.18	0.22	0.21	-3
	Lithuania	0.36	0.36	0.36	-1
N03AX12	gabapentin				
	Estonia	0.90	1.11	1.34	21
	Latvia	1.61	2.00	2.22	11
	Lithuania	0.42	0.50	0.59	20
N03AX14	levetiracetam				
	Estonia	0.39	0.45	0.52	16
	Latvia	0.24	0.31	0.41	33
	Lithuania	0.39	0.49	0.58	19
N03AX16	pregabalin				
	Estonia	0.89	1.24	1.76	43
	Latvia	0.14	0.20	0.29	42
	Lithuania	1.00	1.11	1.38	24
N03AX17	stiripentol				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	<0.01	<0.01	
	Lithuania	-	-	-	
N03AX18	lacosamide				
	Estonia	-	-	<0.01	
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N03AX21	retigabine				
	Estonia	<0.01	0.01	-	
	Latvia	<0.01	<0.01	-	
	Lithuania	<0.01	-	<0.01	
N03AX22	perampanel				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N04	ANTI-PARKINSON DRUGS				
	Estonia	3.83	3.83	3.79	-1
	Latvia	4.42	4.54	4.40	-3
	Lithuania	5.45	4.66	4.44	-5
N04A	ANTICHOLINERGIC AGENTS				
	Estonia	0.61	0.62	0.63	2
	Latvia	2.05	2.06	1.99	-3
	Lithuania	1.80	1.77	1.66	-6
N04AA	Tertiary amines				
	Estonia	0.61	0.62	0.63	2
	Latvia	2.05	2.06	1.99	-3
	Lithuania	1.80	1.77	1.66	-6
N04AA01	trihexyphenidyl				
	Estonia	0.61	0.62	0.63	2
	Latvia	2.05	2.06	1.99	-3
	Lithuania	1.80	1.77	1.66	-6
N04B	DOPAMINERGIC AGENTS				
	Estonia	3.22	3.21	3.16	-2
	Latvia	2.37	2.48	2.41	-3
	Lithuania	3.65	2.89	2.78	-4
N04BA	Dopa and dopa derivatives				
	Estonia	1.39	1.41	1.43	2
	Latvia	0.93	1.06	1.02	-4
	Lithuania	1.62	0.84	0.75	-11
N04BA01	levodopa				
	Estonia	1.10	1.12	1.14	2
	Latvia	-	-	-	
	Lithuania	-	-	-	
N04BA02	levodopa and decarboxylase inhibitor				
	Estonia	-	-	-	
	Latvia	0.81	0.94	0.90	-4
	Lithuania	1.35	0.58	0.50	-14



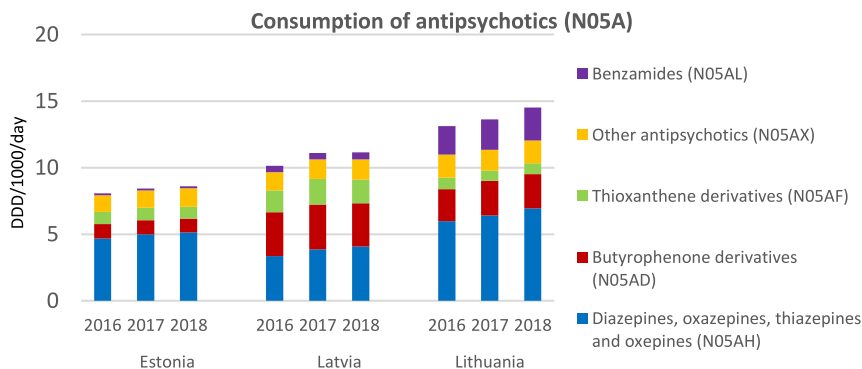
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N04BA03	levodopa, decarboxylase inhibitor and COMT inhibitor				
	Estonia	0.29	0.29	0.29	2
	Latvia	0.11	0.12	0.12	
	Lithuania	0.27	0.26	0.25	-6
N04BB	Adamantane derivatives				
	Estonia	0.33	0.34	0.31	-7
	Latvia	0.62	0.62	0.58	-6
	Lithuania	0.71	0.67	0.63	-6
N04BB01	amantadine				
	Estonia	0.33	0.34	0.31	-7
	Latvia	0.62	0.62	0.58	-6
	Lithuania	0.71	0.67	0.63	-6
N04BC	Dopamine agonists				
	Estonia	0.71	0.71	0.75	4
	Latvia	0.43	0.46	0.45	-2
	Lithuania	1.00	0.98	0.94	-3
N04BC01	bromocriptine				
	Estonia	-	-	-	
	Latvia	0.01	0.01	0.01	-8
	Lithuania	-	-	-	
N04BC04	ropinirole				
	Estonia	0.33	0.33	0.35	7
	Latvia	0.30	0.31	0.30	-2
	Lithuania	0.66	0.65	0.62	-4
N04BC05	pramipexole				
	Estonia	0.38	0.37	0.37	1
	Latvia	0.12	0.14	0.14	-3
	Lithuania	0.34	0.33	0.32	-2
N04BC07	apomorphine				
	Estonia	<0.01	0.02	0.02	13
	Latvia	-	-	-	
	Lithuania	-	-	-	
N04BD	Monoamine oxidase B inhibitors				
	Estonia	0.79	0.75	0.67	-11
	Latvia	0.39	0.34	0.36	6
	Lithuania	0.32	0.37	0.43	16
N04BD01	selegiline				
	Estonia	-	-	-	
	Latvia	0.38	0.33	0.29	-12
	Lithuania	-	-	-	
N04BD02	rasagiline				
	Estonia	0.79	0.75	0.67	-11
	Latvia	0.01	0.01	0.07	979
	Lithuania	0.32	0.37	0.43	16
N04BX	Other dopaminergic agents				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	<0,01	0,03	0,03	-16
N04BX02	entacapone				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	<0.01	0.03	0.03	-16

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N05	PSYCHOLEPTICS				
	Estonia	43.41	43.65	43.06	-1
	Latvia	33.17	35.03	34.61	-1
	Lithuania	63.37	61.40	58.98	-4
N05A	ANTIPSYCHOTICS				
	Estonia	8.67	8.99	9.16	2
	Latvia	10.57	11.54	11.54	
	Lithuania	13.48	13.97	14.82	6
N05AA	Phenothiazines with aliphatic side-chain				
	Estonia	0.17	0.16	0.16	2
	Latvia	0.22	0.23	0.23	-1
	Lithuania	0.14	0.14	0.14	1
N05AA01	chlorpromazine				
	Estonia	0.10	0.08	0.08	5
	Latvia	-	-	-	
	Lithuania	-	-	-	
N05AA02	levomepromazine				
	Estonia	0.08	0.08	0.08	-2
	Latvia	0.22	0.23	0.23	-1
	Lithuania	0.14	0.14	0.14	1
N05AB	Phenothiazines with piperazine structure				
	Estonia	0.09	0.06	0.08	16
	Latvia	-	-	-	
	Lithuania	0.04	0.04	0.03	-25
N05AB02	fluphenazine				
	Estonia	0.03	0.01	0.01	42
	Latvia	-	-	-	
	Lithuania	0.04	0.04	0.03	-25
N05AB03	perphenazine				
	Estonia	0.06	0.06	0.06	11
	Latvia	-	-	-	
	Lithuania	-	-	-	
N05AB04	prochlorperazine				
	Estonia	<0.01	-	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N05AC	Phenothiazines with piperidine structure				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N05AC01	periciazine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N05AD	Butyrophenone derivatives				
	Estonia	1.10	1.07	1.04	-3
	Latvia	3.28	3.37	3.24	-4
	Lithuania	2.40	2.60	2.57	-1
N05AD01	haloperidol				
	Estonia	0.77	0.76	0.73	-4
	Latvia	3.00	3.07	2.95	-4
	Lithuania	2.09	2.31	2.30	

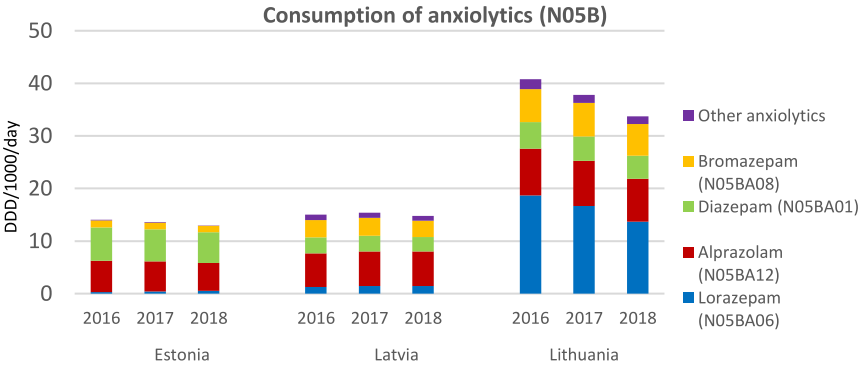
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N05AD03	melperone				
	Estonia	0.32	0.29	0.29	
	Latvia	0.28	0.30	0.29	-3
	Lithuania	0.31	0.30	0.28	-6
N05AD08	droperidol				
	Estonia	0.02	0.02	0.02	-12
	Latvia	-	-	-	
	Lithuania	-	-	-	
N05AE	Indole derivatives				
	Estonia	0.14	0.13	0.12	-12
	Latvia	0.22	0.21	0.19	-10
	Lithuania	0.19	0.16	0.15	-10
N05AE03	sertindole				
	Estonia	0.11	0.10	0.09	-9
	Latvia	0.08	0.08	0.07	-19
	Lithuania	-	-	-	
N05AE04	ziprasidone				
	Estonia	0.03	0.04	0.03	-21
	Latvia	0.14	0.13	0.12	-4
	Lithuania	0.19	0.16	0.15	-10
N05AF	Thioxanthene derivatives				
	Estonia	0.91	0.93	0.88	-6
	Latvia	1.64	1.94	1.77	-9
	Lithuania	0.86	0.76	0.82	8
N05AF01	flupentixol				
	Estonia	0.19	0.20	0.19	-3
	Latvia	0.42	0.48	0.47	-3
	Lithuania	0.27	0.29	0.33	12
N05AF03	chlorprothixene				
	Estonia	0.22	0.22	0.21	-2
	Latvia	0.67	0.72	0.66	-8
	Lithuania	0.27	0.26	0.27	3
N05AF05	zuclopenthixol				
	Estonia	0.50	0.51	0.47	-8
	Latvia	0.55	0.73	0.64	-13
	Lithuania	0.33	0.21	0.23	8
N05AG	Diphenylbutylpiperidine derivatives				
	Estonia	-	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N05AG02	pimozide				
	Estonia	-	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N05AH	Diazepines, oxazepines, thiazepines and oxepines				
	Estonia	4.67	4.99	5.13	3
	Latvia	3.36	3.85	4.08	6
	Lithuania	5.98	6.41	6.93	8
N05AH02	clozapine				
	Estonia	0.58	0.62	0.65	5
	Latvia	0.44	0.50	0.47	-5
	Lithuania	0.47	0.49	0.51	3

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N05AH03	olanzapine				
	Estonia	1.85	1.95	1.97	1
	Latvia	1.37	1.56	1.67	8
	Lithuania	2.83	2.98	3.13	5
N05AH04	quetiapine				
	Estonia	2.24	2.42	2.51	4
	Latvia	1.55	1.80	1.93	7
	Lithuania	2.67	2.94	3.30	12
N05AL	Benzamides				
	Estonia	0.14	0.14	0.14	-1
	Latvia	0.47	0.49	0.52	5
	Lithuania	2.14	2.28	2.47	8
N05AL01	sulpiride				
	Estonia	0.06	0.06	0.06	-2
	Latvia	0.15	0.15	0.16	6
	Lithuania	0.09	0.09	0.11	17
N05AL03	tiapride				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	1.66	1.77	1.95	10
N05AL05	amisulpride				
	Estonia	0.08	0.08	0.08	-1
	Latvia	0.32	0.35	0.37	5
	Lithuania	0.4	0.41	0.41	-1
N05AN	Lithium				
	Estonia	0.20	0.21	0.23	8
	Latvia	-	-	-	
	Lithuania	-	-	-	
N05AN01	lithium				
	Estonia	0.20	0.21	0.23	8
	Latvia	-	-	-	
	Lithuania	-	-	-	
N05AX	Other antipsychotics				
	Estonia	1.24	1.29	1.40	9
	Latvia	1.37	1.45	1.52	5
	Lithuania	1.73	1.58	1.72	9
N05AX08	risperidone				
	Estonia	0.63	0.65	0.66	2
	Latvia	0.93	0.93	0.96	3
	Lithuania	0.86	0.85	0.83	-2
N05AX12	aripiprazole				
	Estonia	0.56	0.58	0.68	16
	Latvia	0.41	0.48	0.52	8
	Lithuania	0.36	0.47	0.57	20
N05AX13	paliperidone				
	Estonia	0.05	0.06	0.06	5
	Latvia	0.03	0.04	0.03	-11
	Lithuania	0.51	0.26	0.32	22
N05AX15	cariprazine				
	Estonia	-	-	<0.01	
	Latvia	-	<0.01	0.01	
	Lithuania	-	-	-	

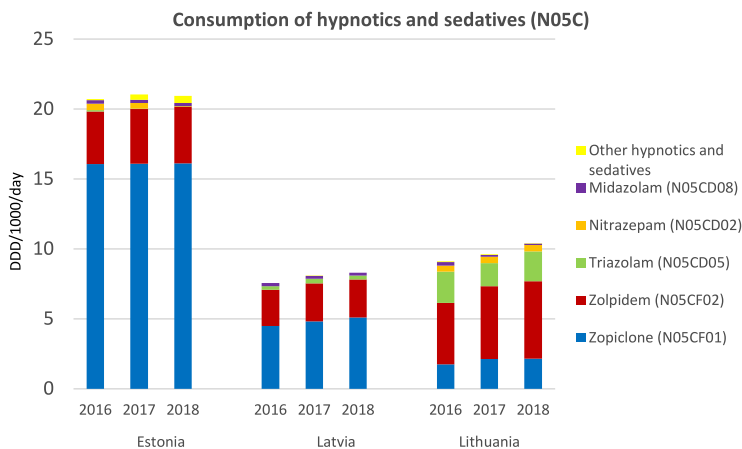
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N05B	ANXIOLYTICS				
	Estonia	14.04	13.63	12.95	-5
	Latvia	15.05	15.41	14.77	-4
	Lithuania	40.78	37.81	33.74	-11
N05BA	Benzodiazepine derivatives				
	Estonia	14.04	13.63	12.95	-5
	Latvia	14.70	15.07	14.41	-4
	Lithuania	40.73	37.76	33.67	-11
N05BA01	diazepam				
	Estonia	6.32	6.09	5.83	-4
	Latvia	3.01	2.96	2.74	-7
	Lithuania	5.07	4.66	4.42	-5
N05BA02	chlordiazepoxide				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	0.14	0.13	0.10	-18
	Lithuania	0.07	0.06	0.04	-21
N05BA03	medazepam				
	Estonia	<0.01	-	-	
	Latvia	-	-	-	
	Lithuania	0.88	0.59	0.64	9
N05BA04	oxazepam				
	Estonia	0.05	0.05	0.01	-85
	Latvia	0.56	0.53	0.46	-13
	Lithuania	0.18	0.19	0.15	-19
N05BA05	potassium clorazepate				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.70	0.67	0.60	-10
N05BA06	lorazepam				
	Estonia	0.28	0.39	0.51	30
	Latvia	1.27	1.42	1.47	4
	Lithuania	18.69	16.65	13.70	-18
N05BA08	bromazepam				
	Estonia	1.36	1.32	1.21	-9
	Latvia	3.32	3.39	3.05	-10
	Lithuania	6.28	6.37	5.99	-6
N05BA09	clobazam				
	Estonia	0.02	0.03	0.03	26
	Latvia	-	-	-	
	Lithuania	-	-	-	



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N05BA12	alprazolam				
	Estonia	5.97	5.72	5.35	-7
	Latvia	6.40	6.63	6.58	-1
	Lithuania	8.85	8.58	8.13	-5
N05BB	Diphenylmethane derivatives				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N05BB01	hydroxyzine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N05BE	Azaspirodecanedione derivatives				
	Estonia	<0.01	<0.01	-	
	Latvia	0.35	0.34	0.36	3
	Lithuania	0.05	0.06	0.07	31
N05BE01	buspirone				
	Estonia	<0.01	<0.01	-	
	Latvia	0.35	0.34	0.36	3
	Lithuania	0.05	0.06	0.07	31
N05C	HYPNOTICS AND SEDATIVES				
	Estonia	20.70	21.04	20.94	
	Latvia	7.56	8.08	8.29	3
	Lithuania	9.11	9.62	10.41	8
N05CD	Benzodiazepine derivatives				
	Estonia	0.83	0.67	0.27	-59
	Latvia	0.49	0.53	0.48	-10
	Lithuania	2.98	2.28	2.73	20
N05CD02	nitrazepam				
	Estonia	0.46	0.40	0.05	-87
	Latvia	-	-	-	
	Lithuania	0.43	0.45	0.44	-1
N05CD04	estazolam				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.05	0.04	0.04	-7
N05CD05	triazolam				
	Estonia	0.09	0.03	<0.01	-99
	Latvia	0.27	0.31	0.27	-13
	Lithuania	2.24	1.65	2.14	30



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N05CD08	midazolam				
	Estonia	0.27	0.24	0.22	-5
	Latvia	0.23	0.22	0.21	-5
	Lithuania	0.27	0.14	0.11	-23
N05CF	Benzodiazepine related drugs				
	Estonia	19.82	19.99	20.14	1
	Latvia	7.06	7.54	7.81	4
	Lithuania	6.12	7.32	7.68	5
N05CF01	zopiclone				
	Estonia	16.05	16.09	16.11	
	Latvia	4.47	4.82	5.08	5
	Lithuania	1.75	2.11	2.15	2
N05CF02	zolpidem				
	Estonia	3.77	3.90	4.03	3
	Latvia	2.59	2.72	2.73	1
	Lithuania	4.37	5.22	5.53	6
N05CH	Melatonin receptor agonists				
	Estonia	0.05	0.06	0.02	-63
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	<0.02	-80
N05CH01	melatonin				
	Estonia	0.05	0.06	0.02	-63
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	<0.01	-80
N05CM	Other hypnotics and sedatives				
	Estonia	0.01	0.32	0.51	61
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	
N05CM09	Valerianae radix				
	Estonia	-	0.31	0.50	61
	Latvia	-	-	-	
	Lithuania	-	-	-	
N05CM18	dexmedetomidine				
	Estonia	0.01	0.01	0.01	48
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	<0.01	<0.01	



Consumption of psycholeptics in Lithuania

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Psycholeptics comprise three large pharmacotherapeutic groups: antipsychotics, anxiolytics and hypnotics/ sedatives. Total consumption of psycholeptics slightly decreased during the period of 2010-2018 (60.27->58.98 DDDs/1000 inh./d.).

Trends in consumption of each pharmacotherapeutic group of psycholeptics and possible causes of changes with regard to available guidelines and reimbursement status are discussed separately below.

Antipsychotics (N05A)

18 antipsychotics are authorised in Lithuania and 13 of them (fluphenazine, haloperidol, melperone, ziprasidone, flupentixol, clozapine, olanzapine, quetiapine, tiapride, amisulpride, risperidone, aripiprazole, paliperidone) are fully reimbursed for various psychiatric disorders. Reimbursed antipsychotics can only be prescribed and subsequently continued by psychiatrist with an exception for tiapride which can be continued by general practitioner. The majority of antipsychotics mentioned above are reimbursed within licenced indications and only clozapine is restricted for patients with resistant schizophrenia.

Over the 8 year period (2010-2018), the consumption of antipsychotics increased by 58% from 9.41 to 14.83 DDDs/1000 inhabitants daily. This change was mainly driven by a constant increase in consumption of top 3 most commonly used antipsychotics – quetiapine (1.46->3.30 DDDs/1000 inh. /d.), olanzapine (1.71-> 3.13 DDDs/1000 inh./d.) and haloperidol (1.81->2.30 DDDs /1000 inh./d.). During that period two new drugs – aripiprazole and paliperidone – were included in the reimbursement list and had some impact on increasing overall trend of antipsychotic consumption. The use of other antipsychotics did not change significantly in 2010-2018. Not reimbursed antipsychotics (levomepromazine, chlorprotixene, zuclopenthixol, sulpiride, cariprazine) accounted for only 5% of the total consumption.

The treatment of schizophrenia spectrum disorders is guided by the guidelines which were approved in 2012 by the Ministry of Health. However, these guidelines describe treatment with reimbursed antipsychotics only, while national or nationally approved international guidelines which would provide recommendations for the treatment of schizophrenia spectrum disorders with any available antipsychotics are lacking. According to the existing guidelines, the treatment can be initiated with any of antipsychotic except clozapine or long acting injectable products. Haloperidol is recommended to be used as the first line medication for children younger than 15 years old, and risperidone is preferred for 15 years and older children. Since there are no preferred first line agent for total patient population and given there were

no updated versions, guidelines are considered to have minor to no impact on the overall consumption trends.

There were no significant changes in reimbursement list regarding the antipsychotics; no new or updated guidelines were developed in 2010-2018, therefore it can be reasonably assumed that increased consumption is associated with other factors, for example better diagnostics, lower stigmatization of patients with psychiatric disorders, which might result in increased willingness for the treatment.

Anxiolytics (N05B)

Nine anxiolytics are available in Lithuania (diazepam, lorazepam, chlordiazepoxide, medazepam, oxazepam, potassium clorazepate, bromazepam, clobazam, alprazolam, buspirone), two of them – diazepam and lorazepam – are included in reimbursement list. Diazepam and lorazepam are reimbursed within its licenced indications but only for children, disabled or elderly patients, or those with malignancies. In addition to that, diazepam is reimbursed for any patient diagnosed with epilepsy or demyelinating diseases of the central nervous system. The most consumed anxiolytics were lorazepam (13.70 DDDs/ 1000 inh. /d. in 2018), alprazolam (8.13 DDDs/ 1000 inh. /d. in 2018) and bromazepam (5.99 DDDs/ 1000 inh. /d. in 2018) over the all analysed period. Thus, it can be concluded that reimbursement has some impact on the choice which anxiolytic to prescribe.

Anxiolytics were the most consumed psycholeptics varying from 41.43 DDDs/ 1000 inh./d. in 2010 to 33.74 DDDs/ 1000 inh./d. in 2018. So, the total consumption decreased by 19% with the most prominent drop observed in 2017 and 2018. In 2017, Regional Health Insurance Fund conducted assessment of patterns of anxiolytics prescriptions which aimed to assess compliance with the requirements or relevant summary of product characteristics. This analysis showed that general practitioners did not comply with the requirement to prescribe anxiolytics for the shortest possible duration (not exceeding 4 weeks). After the publication of results, Ministry of Health initiated discussions with the public and physicians to inform about potential benzodiazepine harm with long-term use. Since there are no restrictions to prescribe benzodiazepines in the reimbursement list or relevant guidelines, information spreading is considered to have the major effect on decreasing trends in anxiolytics use.

Hypnotics and sedatives (N05C)

Eight psycholeptics classified as hypnotics and sedatives are authorised in Lithuania – nitrazepam, estazolam, triazolam, midazolam, zopiclone, zolpidem, melatonin and dexmedetomidine. Only nitrazepam is reimbursed for the treatment of epilepsy within its licenced indication. Also nitrazepam is included in the guidelines of the treatment of epilepsy, where it is recommended as a second line treatment for the West syndrome.

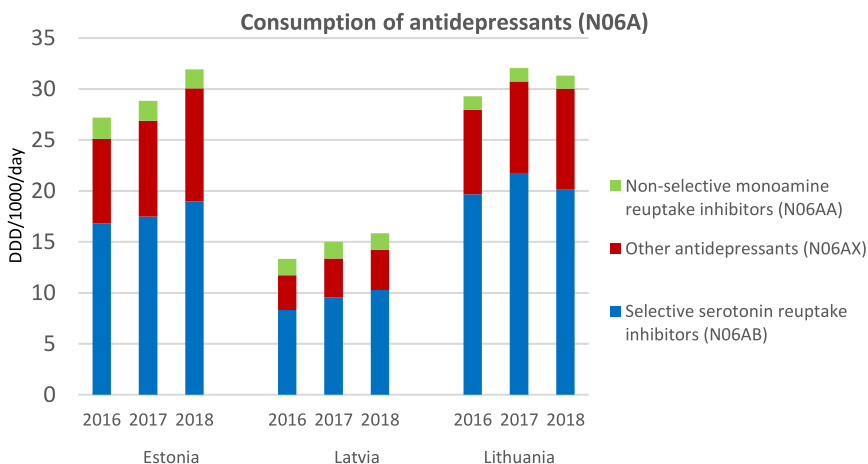
On the whole, hypnotics and sedatives remained the least consumed psycholeptics compared to the anxiolytics and antipsychotics during the 2010-2018 period, however, its consumption has steadily increased by 51% from 6.90 DDDs/1000 inh./d. to 10.41 DDDs/1000 inh./d in 2018. The most consumed hypnotics and sedatives were zolpidem (5.22 DDDs /1000 inh./ d.) and triazolam (1.65 DDDs /1000 inh./ d.) until 2017, when zopiclone (2.11 DDDs /1000 inh./ d.) became more popular than triazolam. Since nitrazepam is reimbursed only for very narrow indication, its consumption is expectedly low representing 0.44 DDDs /1000 inh./ d. in 2018.

There are no therapeutic guidelines for the use of hypnotics and sedatives, only nitrazepam is included in the reimbursement list, therefore the choice of particular drugs is considered to be influenced by other factors.

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N06	PSYCHOANALEPTICS				
	Estonia	31.93	34.03	36.99	9
	Latvia	22.56	24.26	24.70	2
	Lithuania	51.26	56.41	55.81	-1
N06A	ANTIDEPRESSANTS				
	Estonia	27.19	28.84	31.93	11
	Latvia	13.32	14.99	15.83	6
	Lithuania	29.28	32.05	31.30	-2
N06AA	Non-selective monoamine reuptake inhibitors				
	Estonia	2.07	1.97	1.87	-5
	Latvia	1.62	1.65	1.60	-3
	Lithuania	1.32	1.32	1.26	-4
N06AA02	imipramine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	<0.01	-	
	Lithuania	-	-	-	
N06AA04	clomipramine				
	Estonia	0.06	0.07	0.09	17
	Latvia	0.20	0.21	0.22	3
	Lithuania	0.06	0.06	0.06	-8
N06AA09	amitriptyline				
	Estonia	1.59	1.50	1.42	-5
	Latvia	1.22	1.22	1.16	-5
	Lithuania	1.19	1.19	1.14	-4
N06AA10	nortriptyline				
	Estonia	0.41	0.40	0.36	-9
	Latvia	0.19	0.22	0.22	1
	Lithuania	0.06	0.06	0.06	-2
N06AB	Selective serotonin reuptake inhibitors				
	Estonia	16.81	17.47	18.96	9
	Latvia	8.30	9.54	10.29	8
	Lithuania	19.68	21.76	20.13	-7
N06AB03	fluoxetine				
	Estonia	3.00	3.09	3.32	7
	Latvia	0.34	0.38	0.41	9
	Lithuania	0.66	0.70	0.70	1
N06AB04	citalopram				
	Estonia	1.47	1.43	1.38	-3
	Latvia	0.70	0.78	0.85	10
	Lithuania	2.67	2.19	1.05	-52
N06AB05	paroxetine				
	Estonia	2.31	2.35	2.45	4
	Latvia	2.60	2.84	3.00	6
	Lithuania	3.22	3.53	3.70	5
N06AB06	sertraline				
	Estonia	3.60	3.95	4.56	16
	Latvia	0.96	1.13	1.27	13
	Lithuania	5.08	5.54	5.93	7
N06AB08	fluvoxamine				
	Estonia	0.01	0.01	0.01	-14
	Latvia	0.15	0.15	0.17	12
	Lithuania	0.14	0.13	0.14	9

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N06AB10	escitalopram				
	Estonia	6.42	6.64	7.25	9
	Latvia	3.55	4.27	4.59	8
	Lithuania	7.92	9.67	8.62	-11
N06AF	Monoamine oxidase inhibitors, non-selective				
	Estonia	0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N06AF03	phenelzine				
	Estonia	<0.01	-	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N06AF04	tranylcypromine				
	Estonia	0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N06AG	Monoamine oxidase A inhibitors				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N06AG02	moclobemide				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N06AX	Other antidepressants				
	Estonia	8.31	9.41	11.10	18
	Latvia	3.41	3.81	3.95	4
	Lithuania	8.28	8.98	9.91	10
N06AX03	mianserin				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N06AX05	trazodone				
	Estonia	-	-	-	
	Latvia	0.03	0.04	0.03	-1
	Lithuania	0.13	0.16	0.21	36
N06AX11	mirtazapine				
	Estonia	1.68	2.02	2.12	5
	Latvia	0.93	1.06	1.13	7
	Lithuania	4.05	4.41	4.65	6
N06AX12	bupropion				
	Estonia	0.41	0.50	0.66	32
	Latvia	0.17	0.18	0.20	12
	Lithuania	0.16	0.17	0.19	8
N06AX14	tianeptine				
	Estonia	1.00	1.13	1.31	16
	Latvia	0.66	0.71	0.69	-2
	Lithuania	0.55	0.59	0.69	17
N06AX16	venlafaxine				
	Estonia	2.40	2.66	3.09	16
	Latvia	0.80	0.90	1.01	12
	Lithuania	0.98	1.06	1.23	17

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N06AX17	milnacipran				
	Estonia	<0.01	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N06AX18	reboxetine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N06AX21	duloxetine				
	Estonia	1.72	1.79	2.16	20
	Latvia	0.16	0.17	0.20	15
	Lithuania	1.28	1.37	1.50	10
N06AX22	agomelatine				
	Estonia	0.84	0.95	1.31	37
	Latvia	0.42	0.47	0.40	-16
	Lithuania	1.06	1.16	1.33	15
N06AX26	vortioxetine				
	Estonia	0.26	0.35	0.46	31
	Latvia	0.25	0.29	0.29	1
	Lithuania	0.07	0.07	0.11	54
N06B	PSYCHOSTIMULANTS, AGENTS USED FOR ADHD AND NOOTROPICS				
	Estonia	0.92	1.06	1.20	13
	Latvia	7.34	7.44	7.20	-3
	Lithuania	15.80	17.28	18.02	4
N06BA	Centrally acting sympathomimetics				
	Estonia	0.62	0.78	0.92	18
	Latvia	0.05	0.07	0.11	65
	Lithuania	0.03	0.04	0.05	24
N06BA04	methylphenidate				
	Estonia	0.55	0.71	0.85	20
	Latvia	0.05	0.07	0.11	65
	Lithuania	0.03	0.04	0.05	31
N06BA07	modafinil				
	Estonia	<0.01	<0.01	0.01	117
	Latvia	-	-	-	
	Lithuania	-	-	-	

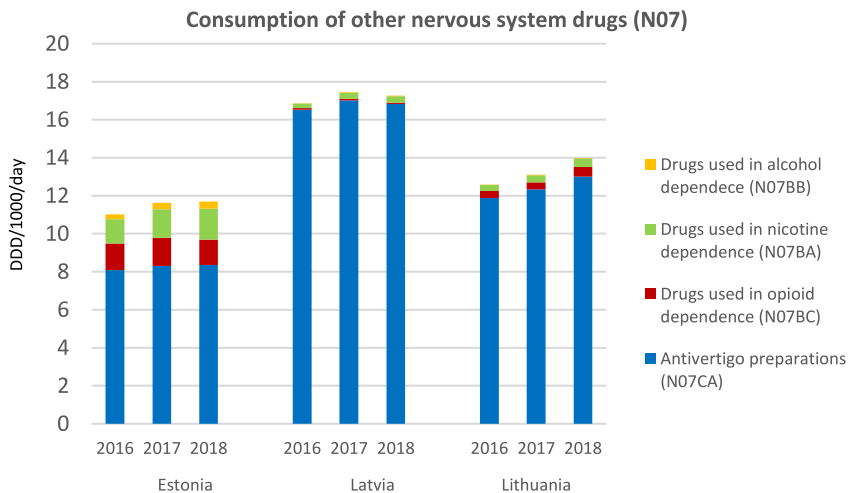


ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N06BA09	atomoxetine				
	Estonia	0.07	0.07	0.06	-4
	Latvia	-	<0.01	<0.01	
	Lithuania	<0.01	<0.01	-	
N06BA11	dexmethylphenidate				
	Estonia	-	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N06BC	Xanthine derivatives				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	-	
	Lithuania	-	-	-	
N06BC01	caffeine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	<0.01	<0.01	-	
	Lithuania	-	-	-	
N06BX	Other psychostimulants and nootropics				
	Estonia	0.30	0.28	0.27	-2
	Latvia	7.29	7.37	7.08	-4
	Lithuania	15.77	17.24	17.97	4
N06BX02	pyritinol				
	Estonia	-	-	-	
	Latvia	0.03	0.03	0.03	6
	Lithuania	-	-	-	
N06BX03	piracetam				
	Estonia	0.27	0.26	0.26	-2
	Latvia	2.09	2.09	2.04	-3
	Lithuania	0.95	1.15	1.17	1
N06BX13	idebenone				
	Estonia	-	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N06BX18	vinpocetine				
	Estonia	0.02	0.02	0.01	-16
	Latvia	5.18	5.25	5.02	-5
	Lithuania	14.82	16.09	16.81	4
N06D	ANTI-DEMENTIA DRUGS				
	Estonia	3.83	4.12	3.86	-6
	Latvia	1.90	1.83	1.67	-9
	Lithuania	6.19	7.07	6.49	-8
N06DA	Anticholinesterases				
	Estonia	0.66	0.73	0.82	11
	Latvia	0.05	0.04	0.04	-5
	Lithuania	0.90	0.90	0.91	1
N06DA02	donepezil				
	Estonia	0.66	0.73	0.82	11
	Latvia	<0.01	<0.01	-	
	Lithuania	0.89	0.90	0.91	1
N06DA04	galantamine				
	Estonia	-	<0.01	-	
	Latvia	0.05	0.04	0.04	-4
	Lithuania	<0.01	<0.01	0.01	67

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N06DX	Other anti-dementia drugs				
	Estonia	3.16	3.39	3.04	-10
	Latvia	1.85	1.79	1.63	-9
	Lithuania	5.29	6.17	5.58	-10
N06DX01	memantine				
	Estonia	0.19	0.25	0.31	22
	Latvia	0.23	0.29	0.37	27
	Lithuania	0.79	0.85	0.87	2
N06DX02	Ginkgo folium				
	Estonia	2.97	3.14	2.73	-13
	Latvia	1.62	1.50	1.26	-16
	Lithuania	4.50	5.32	4.71	-11
N07	OTHER NERVOUS SYSTEM DRUGS				
	Estonia	11.39	11.99	12.10	1
	Latvia	17.02	17.60	17.42	-1
	Lithuania	12.63	13.15	14.07	7
N07A	PARASYMPATHOMIMETICS				
	Estonia	0.35	0.35	0.37	4
	Latvia	0.13	0.14	0.15	6
	Lithuania	0.02	0.02	0.03	8
N07AA	Anticholinesterases				
	Estonia	0.35	0.35	0.37	4
	Latvia	0.13	0.14	0.15	6
	Lithuania	0.02	0.02	0.03	8
N07AA01	neostigmine				
	Estonia	0.04	0.03	0.03	6
	Latvia	0.01	0.01	0.01	3
	Lithuania	0.02	0.02	0.03	8
N07AA02	pyridostigmine				
	Estonia	0.29	0.30	0.31	3
	Latvia	0.12	0.13	0.14	7
	Lithuania	-	-	-	
N07AA03	distigmine				
	Estonia	<0.01	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N07AA51	neostigmine, combinations				
	Estonia	0.02	0.02	0.03	23
	Latvia	-	-	-	
	Lithuania	-	-	-	
N07B	DRUGS USED IN ADDICTIVE DISORDERS				
	Estonia	2.94	3.31	3.33	1
	Latvia	0.35	0.43	0.43	
	Lithuania	0.72	0.76	0.97	28
N07BA	Drugs used in nicotine dependence				
	Estonia	1.28	1.50	1.64	10
	Latvia	0.24	0.32	0.33	4
	Lithuania	0.33	0.37	0.45	24
N07BA01	nicotine				
	Estonia	1.25	1.46	1.61	10
	Latvia	0.22	0.30	0.31	4
	Lithuania	0.30	0.33	0.42	29

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N07BA03	varenicline				
	Estonia	0.03	0.04	0.04	11
	Latvia	0.02	0.02	0.02	9
	Lithuania	0.03	0.04	0.04	-10
N07BB	Drugs used in alcohol dependence				
	Estonia	0.26	0.33	0.36	10
	Latvia	0.02	0.03	0.03	-5
	Lithuania	0.02	0.02	0.02	-6
N07BB01	disulfiram				
	Estonia	0.24	0.30	0.32	8
	Latvia	-	-	-	
	Lithuania	-	-	-	
N07BB03	acamprosate				
	Estonia	<0.01	-	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N07BB04	naltrexone				
	Estonia	<0.01	0.02	0.03	24
	Latvia	0.02	0.03	0.02	-1
	Lithuania	0.01	0.01	0.01	
N07BB05	nalmeferne				
	Estonia	0.01	0.01	0.01	38
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	<0.01	-20
N07BC	Drugs used in opioid dependence				
	Estonia	1.40	1.48	1.33	-10
	Latvia	0.08	0.08	0.07	-12
	Lithuania	0.37	0.38	0.50	33
N07BC01	buprenorphine				
	Estonia	-	-	-	
	Latvia	0.04	0.03	0.03	-16
	Lithuania	0.01	0.01	0.01	
N07BC02	methadone				
	Estonia	1.38	1.46	1.29	-11
	Latvia	-	-	-	
	Lithuania	0.37	0.37	0.49	33
N07BC51	buprenorphine, combinations				
	Estonia	0.02	0.03	0.04	35
	Latvia	0.04	0.05	0.04	-10
	Lithuania	-	-	-	
N07C	ANTIVERTIGO PREPARATIONS				
	Estonia	8.08	8.31	8.36	1
	Latvia	16.53	17.02	16.83	-1
	Lithuania	11.87	12.33	13.01	5
N07CA	Antivertigo preparations				
	Estonia	8.08	8.31	8.36	1
	Latvia	16.53	17.02	16.83	-1
	Lithuania	11.87	12.33	13.01	5
N07CA01	betahistine				
	Estonia	6.62	6.94	7.08	2
	Latvia	12.85	13.65	13.60	
	Lithuania	7.48	8.46	9.13	8

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
N07CA02	cinnarizine				
	Estonia	1.46	1.36	1.25	-8
	Latvia	2.25	2.06	1.88	-9
	Lithuania	2.17	2.07	1.64	-21
N07CA03	flunarizine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
N07CA52	cinnarizine, combinations				
	Estonia	-	-	-	
	Latvia	1.44	1.31	1.35	3
	Lithuania	2.22	1.79	2.24	25
N07X	OTHER NERVOUS SYSTEM DRUGS				
	Estonia	0.02	0.02	0.03	58
	Latvia	0.01	0.01	0.02	36
	Lithuania	0.02	0.04	0.04	67
N07XX	Other nervous system drugs				
	Estonia	0.02	0.02	0.03	58
	Latvia	0.01	0.01	0.02	36
	Lithuania	0.02	0.04	0.04	19
N07XX02	riluzole				
	Estonia	0.02	0.02	0.03	60
	Latvia	0.01	0.01	0.01	2
	Lithuania	0.01	0.03	0.03	19
N07XX06	tetrabenazine				
	Estonia	<0.01	<0.01	0.01	38
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	0.01	22
N07XX07	fampridine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
P	ANTIPARASITIC PRODUCTS, INSECTICIDES AND REPELLENTS				
	Estonia	0.95	0.98	0.99	1
	Latvia	0.83	0.87	0.85	-3
	Lithuania	0.87	1.02	0.95	-7
P01	ANTIPROTOZOALS				
	Estonia	0.75	0.77	0.76	-1
	Latvia	0.39	0.38	0.37	-2
	Lithuania	0.42	0.51	0.50	-1
P01A	AGENTS AGAINST AMOEBIASIS AND OTHER PROTOZOAL DISEASES				
	Estonia	-	-	<0.01	
	Latvia	0.22	0.22	0.19	-10
	Lithuania	0.07	0.11	0.05	-55
P01AB	Nitroimidazole derivatives				
	Estonia	-	-	-	
	Latvia	0.22	0.22	0.19	-10
	Lithuania	0.07	0.11	0.05	-55
P01AB01	metronidazole				
	Estonia	-	-	-	
	Latvia	0.22	0.22	0.19	-10
	Lithuania	0.07	0.11	0.05	-55
P01AX	Other agents against amoebiasis and other protozoal diseases				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
P01AX06	atovaquone				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
P01AB06	nimorazole				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
P01B	ANTIMALARIALS				
	Estonia	0.75	0.77	0.76	-1
	Latvia	0.18	0.16	0.18	8
	Lithuania	0.35	0.40	0.45	14
P01BA	Aminoquinolines				
	Estonia	0.73	0.74	0.73	-2
	Latvia	0.17	0.16	0.17	8
	Lithuania	0.34	0.39	0.44	12
P01BA02	hydroxychloroquine				
	Estonia	0.72	0.74	0.73	-2
	Latvia	0.17	0.16	0.17	8
	Lithuania	0.34	0.39	0.44	12
P01BA03	primaquine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
P01BB	Biguanides				
	Estonia	0.02	0.03	0.04	37
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	0.01	0.02	100

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
P01BB51	proguanil, combinations				
	Estonia	0,02	0,03	0,04	37
	Latvia	<0,01	<0,01	<0,01	
	Lithuania	<0,01	0,01	0,02	100
P01BC	Methanolquinolines				
	Estonia	<0,01	<0,01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
P01BC01	quinine				
	Estonia	<0,01	<0,01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
P01BC02	mefloquine				
	Estonia	<0,01	<0,01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
P01BD	Diaminopyrimidines				
	Estonia	<0,01	<0,01	<0,01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
P01BD01	pyrimethamine				
	Estonia	<0,01	<0,01	<0,01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
P01BD51	pyrimethamine, combinations				
	Estonia	-	<0,01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
P02	ANTHELMINTICS				
	Estonia	0,20	0,21	0,23	9
	Latvia	0,43	0,50	0,48	-4
	Lithuania	0,45	0,51	0,45	-13
P02B	ANTITREMATODALS				
	Estonia	<0,01	<0,01	<0,01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
P02BA	Quinoline derivatives and related substances				
	Estonia	<0,01	<0,01	<0,01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
P02BA01	praziquantel				
	Estonia	<0,01	<0,01	<0,01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
P02C	ANTINEMATODAL AGENTS				
	Estonia	0,20	0,21	0,23	9
	Latvia	0,43	0,50	0,48	-4
	Lithuania	0,45	0,51	0,45	-13
P02CA	Benzimidazole derivatives				
	Estonia	0,20	0,21	0,23	9
	Latvia	0,17	0,20	0,17	-12
	Lithuania	0,36	0,41	0,32	-21

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
P02CA01	mebendazole				
	Estonia	0.19	0.19	0.21	12
	Latvia	0.17	0.20	0.17	-12
	Lithuania	0.36	0.41	0.32	-21
P02CA03	albendazole				
	Estonia	0.01	0.02	0.02	-19
	Latvia	-	-	-	
	Lithuania	-	-	-	
P02CC	Tetrahydropyrimidine derivatives				
	Estonia	-	-	-	
	Latvia	0.25	0.29	0.29	2
	Lithuania	0.08	0.09	0.12	27
P02CC01	pyrantel				
	Estonia	-	-	-	
	Latvia	0.25	0.29	0.29	2
	Lithuania	0.08	0.09	0.12	27
P02CE	Imidazothiazole derivatives				
	Estonia	-	-	-	
	Latvia	0.01	0.01	0.01	-13
	Lithuania	0.01	0.01	0.01	-33
P02CE01	levamisole				
	Estonia	-	-	-	
	Latvia	0.01	0.01	0.01	-13
	Lithuania	0.01	0.01	0.01	-33
P02CF	Avermectines				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
P02CF01	ivermectin				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
R	RESPIRATORY SYSTEM				
	Estonia	85.09	88.38	94.09	6
	Latvia	55.00	58.07	57.64	-1
	Lithuania	69.72	70.15	73.08	4
R01	NASAL PREPARATIONS				
	Estonia	34.53	36.26	37.63	4
	Latvia	24.49	26.47	26.74	1
	Lithuania	24.98	25.33	27.12	7
R01A	DECONGESTANTS AND OTHER NASAL PREPARATIONS FOR TOPICAL USE				
	Estonia	32.06	33.69	34.98	4
	Latvia	24.08	26.03	26.29	1
	Lithuania	24.01	24.32	26.08	7
R01AA	Sympathomimetics, plain				
	Estonia	22.03	22.24	23.04	4
	Latvia	17.99	18.85	18.75	-1
	Lithuania	16.09	16.02	16.97	6
R01AA05	oxymetazoline				
	Estonia	1.90	1.37	1.47	7
	Latvia	1.83	1.71	1.72	1
	Lithuania	1.41	1.00	1.23	23
R01AA07	xylometazoline				
	Estonia	20.13	20.86	21.57	3
	Latvia	14.04	14.43	14.32	-1
	Lithuania	14.68	15.02	15.74	5
R01AA08	naphazoline				
	Estonia	-	-	-	
	Latvia	2.12	2.71	2.70	
	Lithuania	-	-	-	
R01AB	Sympathomimetics, combinations excl. corticosteroids				
	Estonia	1.66	2.56	2.61	2
	Latvia	-	-	-	
	Lithuania	3.41	3.93	3.91	-1
R01AB01	phenylephrine				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	2.44	2.53	2.80	11
R01AB06	xylometazoline				
	Estonia	0.60	0.63	0.58	-8
	Latvia	-	-	-	
	Lithuania	0.97	1.40	1.11	-21
R01AC	Antiallergic agents, excl. corticosteroids				
	Estonia	0.29	0.31	0.27	-14
	Latvia	0.11	0.13	0.10	-22
	Lithuania	0.11	0.10	0.11	2
R01AC03	azelastine				
	Estonia	0.29	0.31	0.27	-14
	Latvia	0.11	0.13	0.10	-22
	Lithuania	0.11	0.10	0.11	2
R01AD	Corticosteroids				
	Estonia	8.08	8.58	9.07	6
	Latvia	5.98	7.04	7.44	6
	Lithuania	4.40	4.26	5.10	20

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
R01AD01	beclometasone				
	Estonia	0.10	0.10	0.06	-42
	Latvia	0.18	0.17	0.14	-20
	Lithuania	-	-	-	
R01AD05	budesonide				
	Estonia	0.89	0.77	0.57	-26
	Latvia	1.57	1.63	1.08	-34
	Lithuania	0.22	0.08	0.01	-85
R01AD08	fluticasone				
	Estonia	0.76	0.89	0.96	8
	Latvia	0.71	0.41	0.69	67
	Lithuania	0.32	0.26	0.23	-11
R01AD09	mometasone				
	Estonia	3.13	3.53	3.90	10
	Latvia	2.72	3.95	4.65	18
	Lithuania	3.26	3.38	4.34	28
R01AD12	fluticasone furoate				
	Estonia	2.84	2.91	3.20	10
	Latvia	0.64	0.71	0.59	-16
	Lithuania	0.61	0.54	0.51	-5
R01AD58	fluticasone, combinations				
	Estonia	0.36	0.38	0.38	2
	Latvia	0.16	0.17	0.28	71
	Lithuania	-	-	-	
R01B	NASAL DECONGESTANTS FOR SYSTEMIC USE				
	Estonia	2.47	2.57	2.64	3
	Latvia	0.41	0.45	0.45	1
	Lithuania	0.97	1.01	1.04	3
R01BA	Sympathomimetics				
	Estonia	2.47	2.57	2.64	3
	Latvia	0.41	0.45	0.45	1
	Lithuania	0.97	1.01	1.04	3
R01BA02	pseudoephedrine				
	Estonia	1.40	1.43	1.50	4
	Latvia	-	-	-	
	Lithuania	-	-	-	
R01BA52	pseudoephedrine, combinations				
	Estonia	1.08	1.14	1.15	1
	Latvia	0.41	0.45	0.45	1
	Lithuania	0.97	1.01	1.04	3
R02	THROAT PREPARATIONS				
	Estonia	2.46	2.65	2.94	11
	Latvia	1.18	1.30	1.28	-1
	Lithuania	2.91	3.17	3.32	5
R02A	THROAT PREPARATIONS				
	Estonia	2.46	2.65	2.94	11
	Latvia	1.18	1.30	1.28	-1
	Lithuania	2.66	3.17	3.32	5
R02AA	Antiseptics				
	Estonia	2.01	2.18	2.44	12
	Latvia	0.96	1.00	0.91	-9
	Lithuania	2.43	2.88	2.92	2

Consumption of medications for treatment of chronic obstructive disease (COPD) in Latvia in 2016-2018

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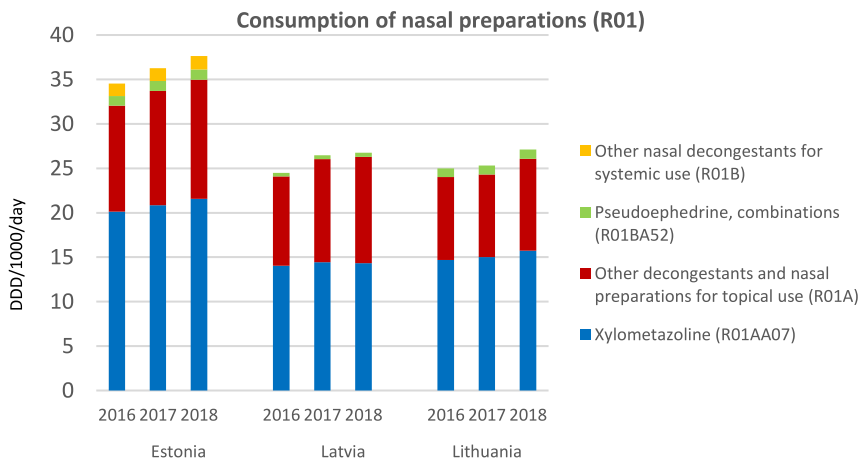
Consumption of medications for treatment of chronic obstructive pulmonary disease (COPD) in Latvia shows a positive trend from 2016 and 2018. As recommended in international guidelines, the number of patients with asthma or chronic obstructive pulmonary disease are being treated with a combination of medicines. In case of asthma patients, the combination of an inhaled glucocorticosteroid and long-acting β_2 agonist is more effective than monotherapy and improves patient compliance. In Latvia, there is increasing consumption of the combinations of formoterol+budesonide and formoterol+beclometasone, which are recommended in guidelines to be used as maintenance therapy and per necessity. The combination of salmeterol+fluticasone is still the leader on the market in Latvia, which may be explained by its historically earlier appearance on the market. The small decrease in consumption of salmeterol+fluticasone in the previous year may be related to the increasing prescription of the newer combination product containing vilanterol+fluticasone. It is the only combination product that patients can use once a day. Unfortunately, the β_2 agonist salbutamol, which is used as a rescue inhalator in case of an asthma attack, is still widely used in Latvia. This means there is poor asthma control, and the most common reason for this is insufficient anti-inflammatory therapy. There are no significant differences between the trends in asthma treatment in the three Baltic states. Our neighbour countries also use a lot of salbutamol, especially Lithuania.

Over the last couple of years, there have been significant changes in the treatment of chronic obstructive pulmonary disease. International guidelines recommend timely and regular bronchodilator therapy. In symptomatic patients with exacerbations, preference should be given to combined dual therapy with a long acting β_2 agonist and a long-acting muscarinic antagonist. This is reflected also by the consumption of medicines in Latvia. The consumption of long-acting muscarinic antagonist monotherapy for treatment of COPD is decreasing, while the consumption of combination therapy is increasing. This is reflected by the drop in the consumption of tiotropium over the last couple of years. However, the increase in consumption of medicines for treatment of COPD patients in Latvia is very slow. Due to economic reasons, the combination of short-acting bronchodilators fenoterol+ipratropium bromide is still widely prescribed. Similar trends in the consumption of certain groups of medicines can be observed also in Lithuania and Estonia, but the overall consumption of medicines is different. The consumption of medicines for treatment of COPD in Latvia is not as high as in the neighbour countries.

This can be clearly seen in the consumption of combination therapy products which is 2-3 times lower than in Estonia. This may be explained by differences in reimbursement policies, as patients in Latvia still have to cover 50% of the cost of COPD medicines. From the comparison of the structure of medicinal product consumption it can be concluded that the differences in treatment of obstructive respiratory diseases are dictated not by variations in doctors' opinion, but by economic considerations.

years old, and risperidone is preferred for 15 years and older children. Since there are no preferred first line agent for total patient population and given there were

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
R02AA01	ambazone				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.04	0.04	0.04	-2
R02AA02	dequalinium				
	Estonia	-	-	-	
	Latvia	0.68	0.73	0.70	-4
	Lithuania	0.59	0.63	0.66	4
R02AA05	chlorhexidine				
	Estonia	-	-	-	
	Latvia	0.27	0.27	0.21	-23
	Lithuania	-	-	-	
R02AA06	cetylpyridinium				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.05	<0.01	<0.01	
R02AA16	benzalkonium				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	<0.01	-	-	
R02AA20	various				
	Estonia	2.01	2.18	2.44	12
	Latvia	-	-	-	
	Lithuania	1.73	2.20	2.22	1
R02AD	Anesthetics, local				
	Estonia	0.22	0.20	0.13	-36
	Latvia	-	-	-	
	Lithuania	-	-	-	
R02AD02	lidocaine				
	Estonia	0.22	0.20	0.13	-36
	Latvia	-	-	-	
	Lithuania	-	-	-	
R02AX	Other throat preparations				
	Estonia	0.23	0.27	0.37	38
	Latvia	0.23	0.30	0.37	24
	Lithuania	0.23	0.29	0.40	36

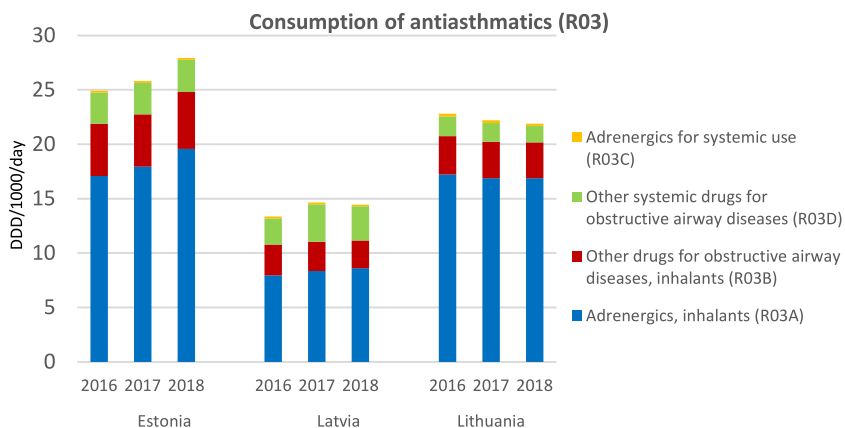


ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
R02AX01	flurbiprofen				
	Estonia	0.23	0.27	0.37	38
	Latvia	0.23	0.30	0.37	24
	Lithuania	0.23	0.29	0.40	36
R03	DRUGS FOR OBSTRUCTIVE AIRWAY DISEASES				
	Estonia	24.94	25.82	27.92	8
	Latvia	14.35	14.65	14.44	-1
	Lithuania	22.79	22.22	21.88	-2
R03A	ADRENERGICS, INHALANTS				
	Estonia	17.09	17.94	19.58	9
	Latvia	7.95	8.36	8.60	3
	Lithuania	17.22	16.88	16.87	
R03AC	Selective beta-2-adrenoreceptor agonists				
	Estonia	4.94	4.65	4.50	-3
	Latvia	0.74	0.80	0.83	3
	Lithuania	8.48	8.65	8.23	-5
R03AC02	salbutamol				
	Estonia	2.94	2.99	3.07	3
	Latvia	0.56	0.62	0.62	1
	Lithuania	7.06	7.43	7.17	-3
R03AC03	terbutaline				
	Estonia	<0.01	-	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
R03AC04	fenoterol				
	Estonia	0.29	0.27	0.23	-13
	Latvia	0.07	0.07	0.07	-12
	Lithuania	0.03	0.03	0.03	-4
R03AC12	salmeterol				
	Estonia	0.16	0.13	0.11	-16
	Latvia	0.03	0.04	0.07	84
	Lithuania	0.20	0.17	0.14	-16
R03AC13	formoterol				
	Estonia	0.89	0.75	0.64	-14
	Latvia	0.06	0.05	0.05	-2
	Lithuania	0.56	0.53	0.48	-10
R03AC18	indacaterol				
	Estonia	0.65	0.51	0.45	-13
	Latvia	0.03	0.02	0.02	-14
	Lithuania	0.62	0.49	0.42	-15
R03AK	Adrenergics in combination with corticosteroids or other drugs, excl. anticholinergics				
	Estonia	10.23	10.89	12.12	11
	Latvia	5.73	5.97	6.14	3
	Lithuania	7.16	5.99	6.35	6
R03AK06	salmeterol and fluticasone				
	Estonia	3.80	3.38	3.29	-3
	Latvia	2.63	2.46	2.25	-8
	Lithuania	2.61	1.36	1.38	2
R03AK07	formoterol and budesonide				
	Estonia	3.93	4.05	4.30	6
	Latvia	1.71	1.83	1.99	8
	Lithuania	3.11	2.80	2.88	3

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
R03AK08	formoterol and beclometasone				
	Estonia	0.87	1.12	1.39	24
	Latvia	0.54	0.63	0.73	16
	Lithuania	1.44	1.68	1.91	13
R03AK10	vilanterol and fluticasone furoate				
	Estonia	1.63	2.31	3.10	34
	Latvia	0.85	1.05	1.17	12
	Lithuania	-	0.15	0.18	20
R03AK13	salbutamol and beclometasone				
	Estonia	-	0.03	0.04	38
	Latvia	-	-	-	
	Lithuania	-	-	-	
R03AL	Adrenergics in combination with anticholinergics				
	Estonia	1.92	2.40	2.97	24
	Latvia	1.48	1.59	1.63	3
	Lithuania	1.59	2.25	2.28	1
R03AL01	fenoterol and ipratropium bromide				
	Estonia	0.78	0.78	0.85	9
	Latvia	1.22	1.21	1.11	-8
	Lithuania	1.59	2.25	2.28	1
R03AL03	vilanterol and umecclidinium bromide				
	Estonia	0.25	0.37	0.61	64
	Latvia	0.06	0.13	0.17	33
	Lithuania	-	-	-	
R03AL04	indacaterol and glycopyrronium bromide				
	Estonia	0.51	0.52	0.54	2
	Latvia	0.20	0.24	0.24	
	Lithuania	-	-	-	
R03AL05	formoterol and acclidinium bromide				
	Estonia	0.21	0.29	0.35	21
	Latvia	-	<0.01	0.09	6571
	Lithuania	-	-	-	
R03AL06	olodaterol and tiotropium bromide				
	Estonia	0.18	0.43	0.63	45
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
R03AL08	vilanterol, umecclidinium bromide and fluticasone furoate				
	Estonia	-	-	-	
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	
R03B	OTHER DRUGS FOR OBSTRUCTIVE AIRWAY DISEASES, INHALANTS				
	Estonia	4.79	4.81	5.23	9
	Latvia	2.83	2.68	2.55	-5
	Lithuania	3.53	3.36	3.30	-2
R03BA	Glucocorticoids				
	Estonia	1.73	1.72	1.83	6
	Latvia	1.69	1.70	1.71	1
	Lithuania	1.68	1.66	1.64	-1
R03BA01	beclometasone				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
R03BA02	budesonide				
	Estonia	1.14	1.09	1.18	8
	Latvia	0.39	0.46	0.49	7
	Lithuania	0.81	0.80	0.82	1
R03BA05	fluticasone				
	Estonia	0.58	0.63	0.64	3
	Latvia	0.70	0.69	0.64	-7
	Lithuania	0.88	0.86	0.82	-4
R03BA08	ciclesonide				
	Estonia	-	-	-	
	Latvia	0.60	0.56	0.59	5
	Lithuania	-	-	-	
R03BB	Anticholinergics				
	Estonia	3.06	3.09	3.40	10
	Latvia	1.14	0.98	0.84	-15
	Lithuania	1.85	1.70	1.66	-3
R03BB01	ipratropium bromide				
	Estonia	0.73	0.65	0.61	-5
	Latvia	-	-	-	
	Lithuania	<0.01	<0.01	<0.01	
R03BB04	tiotropium bromide				
	Estonia	1.30	1.41	1.55	10
	Latvia	0.96	0.82	0.66	-19
	Lithuania	1.44	1.30	1.20	-7
R03BB05	aclidinium bromide				
	Estonia	0.43	0.44	0.46	3
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	0.22	0.23	0.26	14
R03BB06	glycopyrronium bromide				
	Estonia	0.60	0.54	0.52	-3
	Latvia	0.17	0.11	0.10	-16
	Lithuania	0.17	0.13	0.11	-9
R03BB07	umeclidinium bromide				
	Estonia	-	0.05	0.26	405
	Latvia	0.01	0.04	0.08	77
	Lithuania	0.02	0.05	0.08	62
R03C	ADRENERGICS FOR SYSTEMIC USE				
	Estonia	0.19	0.19	0.17	-10
	Latvia	0.18	0.17	0.14	-17
	Lithuania	0.26	0.25	0.20	-19
R03CC	Selective beta-2-adrenoreceptor agonists				
	Estonia	0.19	0.19	0.17	-10
	Latvia	0.18	0.17	0.14	-17
	Lithuania	0.26	0.25	0.20	-19
R03CC02	salbutamol				
	Estonia	0.19	0.19	0.17	-10
	Latvia	0.18	0.17	0.14	-17
	Lithuania	0.26	0.25	0.20	-19
R03CC03	terbutaline				
	Estonia	<0.01	<0.01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
R03D	OTHER SYSTEMIC DRUGS FOR OBSTRUCTIVE AIRWAY DISEASES				
	Estonia	2.87	2.88	2.94	2
	Latvia	3.40	3.44	3.15	-9
	Lithuania	1.79	1.72	1.52	-12
R03DA	Xanthines				
	Estonia	1.45	1.38	1.37	-1
	Latvia	2.22	2.19	2.00	-9
	Lithuania	1.24	1.19	1.11	-7
R03DA04	theophylline				
	Estonia	1.42	1.36	1.35	-1
	Latvia	1.94	1.93	1.76	-9
	Lithuania	0.68	0.66	0.65	-2
R03DA05	aminophylline				
	Estonia	0.03	0.02	0.03	6
	Latvia	0.29	0.27	0.23	-12
	Lithuania	0.56	0.52	0.45	-13
R03DC	Leukotriene receptor antagonists				
	Estonia	1.40	1.46	1.54	5
	Latvia	1.17	1.25	1.15	-8
	Lithuania	0.55	0.52	0.39	-25
R03DC03	montelukast				
	Estonia	1.40	1.46	1.54	5
	Latvia	1.17	1.25	1.15	-8
	Lithuania	0.55	0.52	0.39	-25
R03DX	Other systemic drugs for obstructive airway diseases				
	Estonia	0.02	0.03	0.03	12
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	0.01	0.02	111
R03DX05	omalizumab				
	Estonia	0.02	0.02	0.02	-1
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	<0.01	0.01	0.02	111
R03DX07	roflumilast				
	Estonia	-	-	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
R03DX09	mepolizumab				
	Estonia	-	0.01	0.01	30
	Latvia	-	<0.01	<0.01	
	Lithuania	-	-	-	
R03DX10	benralizumab				
	Estonia	-	-	<0.01	
	Latvia	-	-	<0.01	
	Lithuania	-	-	-	
R05	COUGH AND COLD PREPARATIONS				
	Estonia	7.88	8.11	8.48	5
	Latvia	6.20	6.68	6.33	-5
	Lithuania	8.45	8.53	9.00	5
R05C	EXPECTORANTS, EXCL. COMBINATIONS WITH COUGH SUPPRESSANTS				
	Estonia	7.73	7.95	8.30	4
	Latvia	6.12	6.59	6.27	-5
	Lithuania	8.38	8.46	8.92	5
R05CA	Expectorants				
	Estonia	0.17	0.10	0.10	5
	Latvia	0.06	0.08	0.08	1
	Lithuania	0.08	0.08	0.09	15
R05CA03	guaifenesin				
	Estonia	0.17	0.10	0.10	5
	Latvia	0.06	0.08	0.08	1
	Lithuania	0.08	0.08	0.09	15
R05CB	Mucolytics				
	Estonia	7.56	7.85	8.19	4
	Latvia	6.06	6.51	6.19	-5
	Lithuania	8.30	8.37	8.83	5
R05CB01	acetylcysteine				
	Estonia	4.31	4.39	4.63	6
	Latvia	2.00	2.26	2.02	-11
	Lithuania	3.46	3.24	3.46	7
R05CB02	bromhexine				
	Estonia	0.68	0.72	0.75	4
	Latvia	1.65	1.69	1.61	-4
	Lithuania	0.59	0.53	0.49	-8
R05CB03	carbocisteine				
	Estonia	0.28	0.28	0.32	14
	Latvia	0.10	0.11	0.10	-11
	Lithuania	0.16	0.16	0.15	-10
R05CB06	ambroxol				
	Estonia	2.27	2.45	2.47	1
	Latvia	2.31	2.44	2.45	
	Lithuania	4.08	4.43	4.72	
R05CB13	dornase alfa (desoxyribonuclease)				
	Estonia	0.02	0.02	0.02	25
	Latvia	0.01	<0.01	<0.01	
	Lithuania	0.01	0.01	0.01	-10
R05D	COUGH SUPPRESSANTS, EXCL. COMBINATIONS WITH EXPECTORANTS				
	Estonia	0.10	0.11	0.12	14
	Latvia	0.08	0.09	0.07	-25
	Lithuania	0.07	0.07	0.08	7

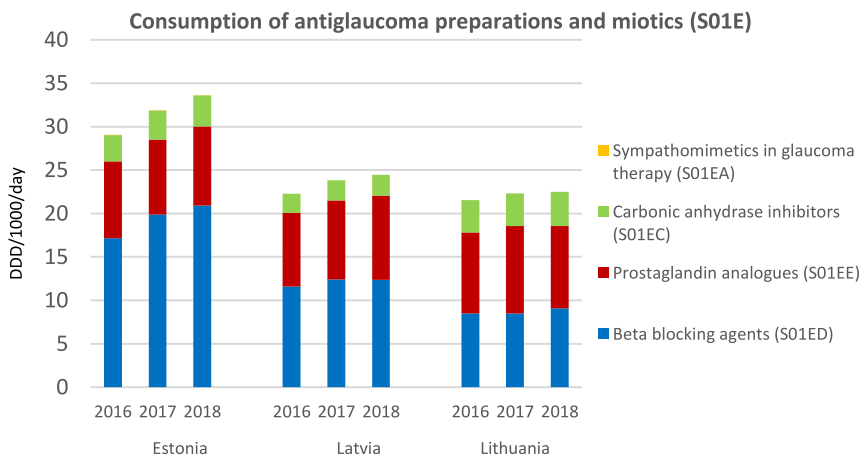
ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
R05DA	Opium alkaloids and derivatives				
	Estonia	-	<0.01	-	
	Latvia	0.08	0.09	0.07	-25
	Lithuania	-	-	-	
R05DA04	codeine				
	Estonia	-	<0.01	-	
	Latvia	-	-	-	
	Lithuania	-	-	-	
R05DA09	dextromethorphan				
	Estonia	-	-	-	
	Latvia	0.08	0.09	0.07	-25
	Lithuania	-	-	-	
R05DB	Other cough suppressants				
	Estonia	0.10	0.11	0.12	15
	Latvia	-	-	-	
	Lithuania	0.07	0.07	0.08	7
R05DB09	oxeladin				
	Estonia	0.10	0.11	0.12	15
	Latvia	-	-	-	
	Lithuania	0.07	0.07	0.08	7
R05F	COUGH SUPPRESSANTS AND EXPECTORANTS, COMBINATIONS				
	Estonia	0.05	0.05	0.06	19
	Latvia	-	-	-	
	Lithuania	-	-	-	
R05FA	Opium derivatives and expectorants				
	Estonia	0.05	0.05	0.06	19
	Latvia	-	-	-	
	Lithuania	-	-	-	
R05FA02	opium derivatives and expectorants				
	Estonia	0.05	0.05	0.06	19
	Latvia	-	-	-	
	Lithuania	-	-	-	
R06	ANTIHISTAMINES FOR SYSTEMIC USE				
	Estonia	15.28	15.54	17.13	10
	Latvia	8.66	8.87	8.75	-1
	Lithuania	10.59	10.91	11.76	8
R06A	ANTIHISTAMINES FOR SYSTEMIC USE				
	Estonia	12.13	13.92	14.32	10
	Latvia	8.66	8.87	8.75	-1
	Lithuania	8.95	10.35	10.53	8
R06AA	Aminoalkyl ethers				
	Estonia	0.50	0.47	0.49	4
	Latvia	2.12	2.26	2.14	-5
	Lithuania	1.68	1.63	1.88	15
R06AA02	diphenhydramine				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
R06AA04	clemastine				
	Estonia	0.50	0.47	0.49	4
	Latvia	2.12	2.26	2.14	-5
	Lithuania	1.68	1.63	1.88	15

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
R06AC	Substituted ethylene diamines				
	Estonia	-	-	-	
	Latvia	0.53	0.50	0.51	1
	Lithuania	0.01	0.01	0.01	-27
R06AC03	chloropyramine				
	Estonia	-	-	-	
	Latvia	0.53	0.50	0.51	1
	Lithuania	0.01	0.01	0.01	-27
R06AE	Piperazine derivatives				
	Estonia	6.89	7.28	8.26	13
	Latvia	3.14	3.18	3.16	-1
	Lithuania	2.95	3.15	3.33	6
R06AE07	cetirizine				
	Estonia	6.47	6.82	7.78	14
	Latvia	2.81	2.81	2.83	
	Lithuania	2.77	2.99	3.21	7
R06AE09	levocetirizine				
	Estonia	0.42	0.46	0.48	3
	Latvia	0.33	0.36	0.33	-10
	Lithuania	0.18	0.16	0.12	-24
R06AX	Other antihistamines for systemic use				
	Estonia	7.89	7.79	8.38	8
	Latvia	2.87	2.93	2.95	1
	Lithuania	5.95	6.12	6.54	7
R06AX13	loratadine				
	Estonia	3.88	3.92	4.12	5
	Latvia	1.16	1.10	1.12	2
	Lithuania	2.92	3.07	3.31	8
R06AX15	mebhydrolin				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
R06AX17	ketotifen				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	0.21	0.19	0.17	-14
	Lithuania	-	-	-	
R06AX22	ebastine				
	Estonia	1.37	1.18	1.26	6
	Latvia	<0.01	<0.01	-	
	Lithuania	0.57	0.20	0.27	38
R06AX26	fexofenadine				
	Estonia	-	-	-	
	Latvia	-	-	-	
	Lithuania	0.04	<0.01	-	
R06AX27	desloratadine				
	Estonia	1.65	1.41	1.44	2
	Latvia	0.64	0.71	0.67	-5
	Lithuania	0.88	0.94	0.80	-16
R06AX28	rupatadine				
	Estonia	0.16	0.20	0.21	7
	Latvia	0.14	0.18	0.19	7
	Lithuania	0.41	0.49	0.54	11

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
R06AX29	bilastine				
	Estonia	0.83	1.07	1.34	26
	Latvia	0.73	0.75	0.80	6
	Lithuania	1.14	1.42	1.63	15
R07	OTHER RESPIRATORY SYSTEM PRODUCTS				
	Estonia	-	-	-	
	Latvia	0.11	0.11	0.10	-2
	Lithuania	-	-	-	
R07A	OTHER RESPIRATORY SYSTEM PRODUCTS				
	Estonia	-	-	-	
	Latvia	0.11	0.11	0.10	-2
	Lithuania	-	-	-	
R07AA	Lung surfactants				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
R07AA02	natural phospholipids				
	Estonia	-	-	-	
	Latvia	<0.01	<0.01	<0.01	
	Lithuania	-	-	-	
R07AB	Respiratory stimulants				
	Estonia	-	-	-	
	Latvia	0.11	0.11	0.10	-2
	Lithuania	-	-	-	
R07AB02	nikethamide				
	Estonia	-	-	-	
	Latvia	0.11	0.11	0.10	-2
	Lithuania	-	-	-	

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
S	SENSORY ORGANS				
	Estonia	29.05	31.90	33.63	5
	Latvia	22.98	24.56	25.19	3
	Lithuania	22.95	23.68	23.87	1
S01	OPHTHALMOLOGICALS				
	Estonia	29.05	31.90	33.63	5
	Latvia	22.98	24.56	25.19	3
	Lithuania	22.95	23.68	23.87	1
S01E	ANTIGLAUCOMA PREPARATIONS AND MIOTICS				
	Estonia	29.05	31.90	33.63	5
	Latvia	22.98	24.56	25.19	3
	Lithuania	22.95	23.68	23.87	1
S01EA	Sympathomimetics in glaucoma therapy				
	Estonia	<0.01	<0.01	0.01	18
	Latvia	0.71	0.73	0.72	-1
	Lithuania	1.41	1.36	1.37	1
S01EA05	brimonidine				
	Estonia	<0.01	<0.01	0.01	18
	Latvia	0.71	0.73	0.72	-1
	Lithuania	1.41	1.36	1.37	1
S01EB	Parasympathomimetics				
	Estonia	0.02	0.01	0.01	3
	Latvia	-	-	-	
	Lithuania	-	-	-	
S01EB01	pilocarpine				
	Estonia	0.02	0.01	0.01	-19
	Latvia	-	-	-	
	Lithuania	-	-	-	
S01EB02	carbachol				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	-	-	-	
	Lithuania	-	-	-	
S01EC	Carbonic anhydrase inhibitors				
	Estonia	3.03	3.36	3.59	7
	Latvia	2.19	2.34	2.43	4
	Lithuania	3.70	3.78	3.94	4
S01EC01	acetazolamide				
	Estonia	0.06	0.06	0.06	9
	Latvia	0.09	0.09	0.08	-5
	Lithuania	0.07	0.08	0.07	-8
S01EC03	dorzolamide				
	Estonia	0.82	0.82	0.86	6
	Latvia	0.68	0.76	0.85	11
	Lithuania	0.92	0.91	1.28	41
S01EC04	brinzolamide				
	Estonia	1.49	1.54	1.63	6
	Latvia	1.43	1.49	1.50	
	Lithuania	1.82	1.78	1.56	-13
S01EC54	brinzolamide, combinations				
	Estonia	0.66	0.95	1.03	8
	Latvia	-	-	-	
	Lithuania	0.89	1.01	1.03	2

ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
S01ED	Beta blocking agents				
	Estonia	17.16	19.87	20.93	5
	Latvia	11.59	12.39	12.36	
	Lithuania	8.48	8.49	9.09	7
S01ED01	timolol				
	Estonia	8.60	11.60	12.13	5
	Latvia	3.18	3.11	2.78	-11
	Lithuania	1.76	1.80	1.80	
S01ED02	betaxolol				
	Estonia	0.99	0.99	0.91	-8
	Latvia	0.77	0.77	0.75	-3
	Lithuania	0.52	0.48	0.43	-9
S01ED51	timolol, combinations				
	Estonia	7.56	7.28	7.90	8
	Latvia	7.64	8.51	8.83	4
	Lithuania	6.20	6.21	6.86	10
S01EE	Prostaglandin analogues				
	Estonia	8.84	8.64	9.09	5
	Latvia	8.49	9.10	9.68	6
	Lithuania	9.35	10.05	9.47	-6
S01EE01	latanoprost				
	Estonia	5.57	5.39	5.91	10
	Latvia	7.44	7.93	8.26	4
	Lithuania	6.42	6.26	5.89	-6
S01EE03	bimatoprost				
	Estonia	<0.01	<0.01	<0.01	
	Latvia	0.22	0.24	0.65	171
	Lithuania	0.68	1.49	1.22	-18
S01EE04	travoprost				
	Estonia	2.13	1.94	1.76	-9
	Latvia	0.31	0.17	0.23	35
	Lithuania	1.53	1.49	1.43	-4
S01EE05	tafluprost				
	Estonia	1.13	1.31	1.42	8
	Latvia	0.52	0.76	0.54	-29
	Lithuania	0.73	0.82	0.93	13



ATC code	ATC group/ INN	DDD/1000/day			Relative change %
		2016	2017	2018	
V	VARIOUS				
	Estonia	0.16	0.18	0.20	12
	Latvia	0.16	0.14	0.15	13
	Lithuania	0.09	0.10	0.09	-7
V03	ALL OTHER THERAPEUTIC PRODUCTS				
	Estonia	0.16	0.18	0.20	12
	Latvia	0.16	0.14	0.15	13
	Lithuania	0.09	0.10	0.09	-7
V03A	ALL OTHER THERAPEUTIC PRODUCTS				
	Estonia	0.16	0.18	0.20	12
	Latvia	0.16	0.14	0.15	13
	Lithuania	0.09	0.10	0.09	-7
V03AE	Drugs for treatment of hyperkalemia and hyperphosphatemia				
	Estonia	0.10	0.11	0.12	13
	Latvia	0.14	0.12	0.09	-18
	Lithuania	0.02	0.03	0.02	-32
V03AE01	polystyrene sulfonate				
	Estonia	0.05	0.06	0.07	17
	Latvia	0.01	<0.01	-	-
	Lithuania	0.02	0.03	0.02	-32
V03AE02	sevelamer				
	Estonia	0.03	0.03	0.03	9
	Latvia	0.02	0.03	0.02	-18
	Lithuania	-	-	-	-
V03AE03	lanthanum carbonate				
	Estonia	0.02	0.02	0.02	6
	Latvia	<0.01	0.01	0.01	-35
	Lithuania	-	-	-	-
V03AE07	calcium acetate				
	Estonia	-	-	-	-
	Latvia	0.09	0.08	0.07	-15
	Lithuania	-	-	-	-
V03AF	Detoxifying agents for antineoplastic treatment				
	Estonia	0.06	0.07	0.08	10
	Latvia	0.03	0.02	0.06	180
	Lithuania	0.07	0.08	0.08	1
V03AF03	calcium folinate				
	Estonia	<0.01	<0.01	<0.01	-
	Latvia	0.03	0.02	0.06	180
	Lithuania	0.05	0.05	0.05	18
V03AF07	rasburicase				
	Estonia	-	<0.01	<0.01	-
	Latvia	-	-	-	-
	Lithuania	-	-	-	-
V03AF10	sodium levofolinate				
	Estonia	0.06	0.07	0.08	10
	Latvia	-	-	-	-
	Lithuania	0.02	0.03	0.02	-23

7. Top 15 of prescription-only medicines in 2018

ESTONIA			
No	ATC	Active substance	DDD/1000/day
1	C09AA05	Ramipril	56.40
2	C10AA07	Rosuvastatin	33.05
3	A02BC01	Omeprazole	28.22
4	C08CA01	Amlodipine	26.92
5	C07AB02	Metoprolol	26.21
6	M01AE01	Ibuprofen	25.84
7	C10AA05	Atorvastatin	23.23
8	C07AB12	Nebivolol	22.47
9	C09CA07	Telmisartan	21.45
10	A10BA02	Metformin	21.02
11	H03AA01	Levothyroxine sodium	18.99
12	C09BA04	Perindopril+Indapamide	16.90
13	N05CF01	Zopiclone	16.11
14	C03CA04	Toraseamide	14.71
15	A02BC02	Pantoprazole	11.85

LATVIA			
No	ATC	Active substance	DDD/1000/day
1	C10AA05	atorvastatin	49.18
2	C10AA07	rosuvastatin	32.35
3	C09BA04	perindopril and indapamide	25.26
4	C09AA05	ramipril	24.76
5	C07AB07	bisoprolol	19.21
6	M01AB05	diclofenac	18.00
7	C09AA04	perindopril	17.66
8	A10BA02	metformin	16.48
9	A02BC01	omeprazole	16.41
10	C09BB04	perindopril and amlodipine	15.52
11	H03AA01	levothyroxine sodium	15.47
12	C07AB12	nebivolol	14.93
13	C08CA01	amlodipine	14.56
14	N07CA01	betahistine	13.60
15	C09BX01	perindopril, amlodipine and indapamide	13.54

LITHUANIA			
No	ATC	Active substance	DDD/1000/day
	C07AB12	Nebivolol	40.55
2	C10AA05	Atorvastatin	31.94
3	C09AA04	Perindopril	28.62
4	C09AA05	Ramipril	25.58
5	C09BA04	Perindopril + indapamide	24.11
6	A10BA02	Metformin	21.25
7	A02BC01	Omeprazole	20.56
8	M01AB05	Diclofenac	19.49
9	C07AB02	Metoprolol	19.01
10	H03AA01	Levothyroxine sodium	18.21
11	C09CA03	Valsartan	17.92
12	N06BX18	Vinpocetine	16.81
13	C02AC05	Moxonodine	16.36
14	C01EB15	Trimetazidine	15.17
15	N05BA06	Lorazepam	13.70

8. Top 15 of over -the-counter medicines in 2018

ESTONIA			
No	ATC	Active substance	DDD/1000/day
1	B01AC30	Acetylsalicylic acid combinations	45.18
2	A02BC01	Omeprazole	28.22
3	M01AE01	Ibuprofen	25.84
4	R01AA07	Xylometazoline	21.57
5	B01AC06	Acetylsalicylic acid	13.05
6	A02BC02	Pantoprazole	11.85
7	A02BC05	Esomeprazole	9.29
8	N02BE01	Paracetamol	9.11
9	M01AX05	Glucosamine	8.24
10	R06AE07	Cetirizine	7.77
11	M01AB05	Diclofenac	7.51
12	A06AD11	Lactulose	7.37
13	R05CB01	Acetylcysteine	4.63
14	A06AB08	Sodium picosulfate	4.33
15	A03AD02	Drotaverine	4.32

LATVIA			
No	ATC	Active substance	DDD/1000/day
1	B01AC06	acetylsalicylic acid	63.15
2	M01AE01	ibuprofen	23.32
3	R01AA07	xylometazoline	14.32
4	A02BC01	omeprazole	11.75
5	A03AD02	drotaverine	4.41
6	N02BA51	acetylsalicylic acid, combinations excl. psycholeptics	3.73
7	A06AB08	sodium picosulfate	3.18
8	A06AD11	lactulose	2.97
9	A06AB02	bisacodyl	2.77
10	R01AA08	naphazoline	2.70
11	A01AA01	sodium fluoride	2.54
12	R05CB06	ambroxol	2.45
13	N02BE51	paracetamol, combinations excl. psycholeptics	2.32
14	N02BE01	paracetamol	2.12
15	A09AA02	multienzymes (lipase, protease etc.)	2.11

LITHUANIA			
No	ATC	Active substance	DDD/1000/day
1	B01AC06	Acetylsalicylic acid	51.66
2	R01AA07	Xylometazoline	15.74
3	M01AE01	Ibuprofen	10.4
4	A02BA02	Ranitidine	6.15
5	R05CB06	Ambroxol	4.56
6	A06AD11	Lactulose	4.54
7	A06AB08	Sodium picosulfate	4.27
8	A09AA02	Multienzymes (lipase, protease etc.)	3.47
9	R05CB01	Acetylcysteine	3.46
10	R01AB01	Phenylephrine	2.8
11	A01AA01	Sodium fluoride	2.6
12	A03AD02	Drotaverine	2.6
13	N06DX02	Ginkgo folium	2.46
14	N02BE01	Paracetamol	2.43
15	A06AB02	Bisacodyl	2.27

9. Top 15 most used ATC 3rd level groups in 2018

ESTONIA			
No	ATC	Active substance	DDD/1000/day
1	B01A	Antithrombotic agents	87.71
2	C09A	Ace inhibitors, plain	78.10
3	M01A	Antiinflammatory and antirheumatic products, non-steroids	67.54
4	C10A	Lipid modifying agents, plain	63.73
5	C07A	Beta blocking agents	54.55
6	A02B	Drugs for peptic ulcer and gastro-oesophageal reflux disease (Gord)	51.46
7	C09B	Ace inhibitors, combinations	50.84
8	A10B	Blood glucose lowering drugs, excl. insulins	48.91
9	C08C	Selective calcium channel blockers with mainly vascular effects	48.09
10	C09C	Angiotensin II receptor blockers (ARBS), plain	42.31
11	R01A	Decongestants and other nasal preparations for topical use	34.98
12	S01E	Antiglaucoma preparations and miotics	33.62
13	N06A	Antidepressants	31.92
14	C09D	Angiotensin II receptor blockers (ARBS), combinations	31.38
15	G03A	Hormonal contraceptives for systemic use	25.72

LATVIA			
No	ATC	Active substance	DDD/1000/day
1	C10A	Lipid modifying agents, plain	83.63
2	B01A	Antithrombotic agents	81.97
3	C09B	Ace inhibitors, combinations	68.33
4	M01A	Antiinflammatory and antirheumatic products, non-steroids	61.51
5	C09A	Ace inhibitors, plain	57.47
6	C07A	Beta blocking agents	51.88
7	A02B	Drugs for peptic ulcer and gastro-oesophageal reflux disease (Gord)	43.32
8	A10B	Blood glucose lowering drugs, excl. insulins	41.34
9	C08C	Selective calcium channel blockers with mainly vascular effects	30.84
10	R01A	Decongestants and other nasal preparations for topical use	26.29
11	S01E	Antiglaucoma preparations and miotics	25.23
12	C02A	Antiadrenergic agents, centrally acting	17.90
13	C09D	Angiotensin II receptor blockers (ARBS), combinations	17.72
14	N07C	Antivertigo preparations	16.83
15	N06A	Antidepressants	15.83

LITHUANIA			
No	ATC	Active substance	DDD/1000/day
1	C09A	Ace inhibitors, plain	92.23
2	B01A	Antithrombotic agents	80.07
3	C09B	Ace inhibitors, combinations	69.83
4	C07A	Beta blocking agents	69.25
5	M01A	Antiinflammatory and antirheumatic products, non-steroids	65.69
6	A02B	Drugs for peptic ulcer and gastro-oesophageal reflux disease (Gord)	44.74
7	C10A	Lipid modifying agents, plain	44.26
8	A10B	Blood glucose lowering drugs, excl. insulins	39.27
9	C09C	Angiotensin II receptor blockers (ARBS), plain	33.95
10	N05B	Anxiolytics	33.74
11	N06A	Antidepressants	31.30
12	R01A	Decongestants and other nasal preparations for topical use	26.08
13	C08C	Selective calcium channel blockers with mainly vascular effects	23.95
14	S01E	Antiglaucoma preparations and miotics	23.87
15	C09D	Angiotensin II receptor blockers (ARBS), combinations	22.58

10. Contacts



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