

# Characteristics of the outpatient care medicines that exited the reimbursement system during 2010–2022 – A nationwide register study

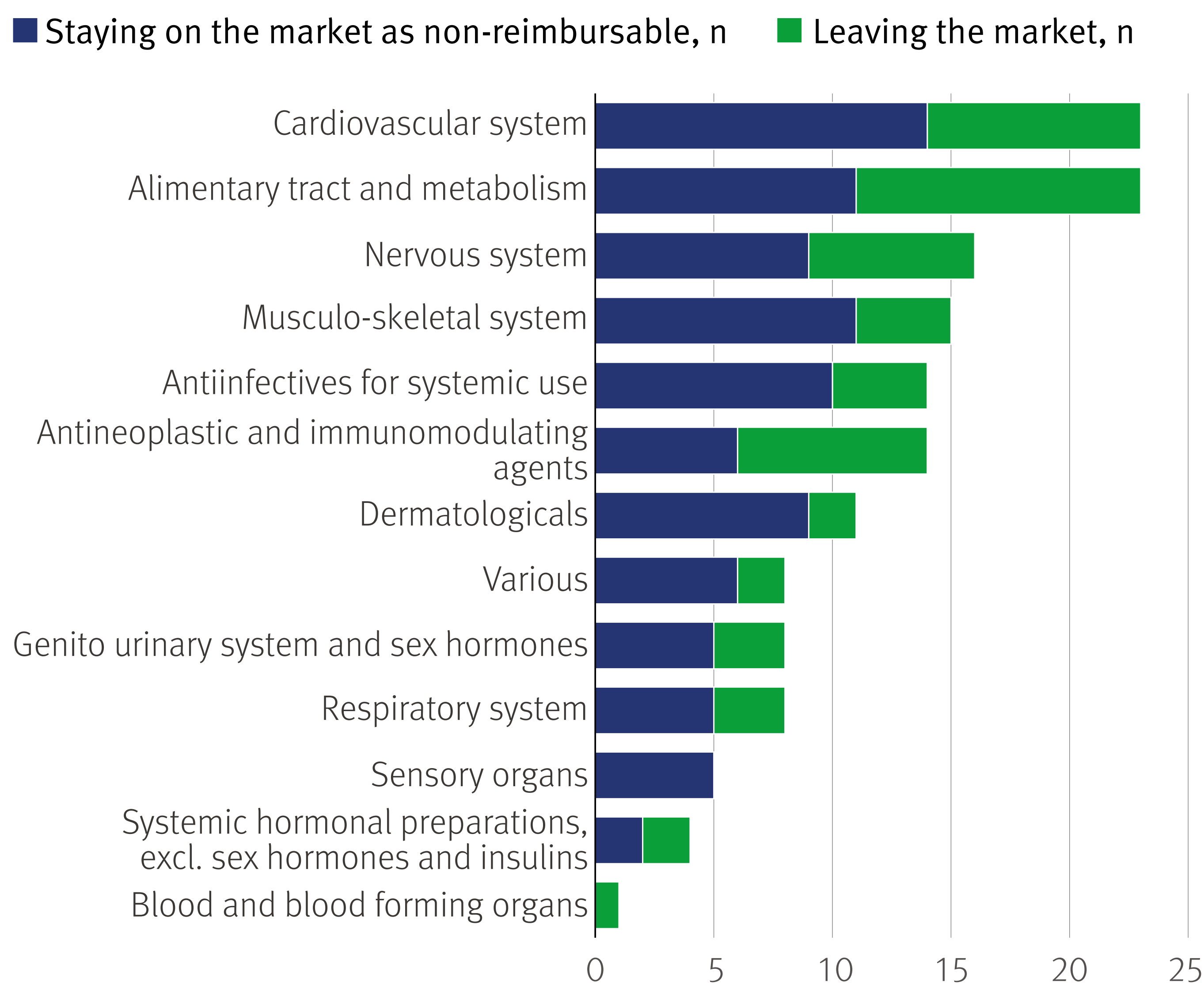
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## Introduction

The aim of the medicines reimbursement system is to enable patients’ access to necessary medicines. The reimbursement status and price of a medicine can have a significant influence on the number of issued and dispensed prescriptions.<sup>1–2</sup> The stage of a pharmaceutical product’s lifecycle may also affect the price and availability of the medicine at the community pharmacies.<sup>3</sup> Even though being included in the reimbursement system is essential for availability and patients’ access to medicines dispensed by community pharmacies, several medicines exit the system every year.

Figure 1. Therapeutic areas and marketing status\* of active pharmaceutical ingredients (APIs) that exited the reimbursement system 2010–2022



\*Immediately after the change in the reimbursement status

## Aims

The aim of this study is to evaluate medicines exiting the reimbursement system using national register data. Furthermore, therapeutic areas, ages, pricing levels, and the criticality of the medicines are examined.

## Method

In Finland, reimbursements are provided to patients directly at community pharmacies. Data on all medicines that exited the reimbursement system for at least one calendar year during 1.1.2010–31.12.2022 were retrieved from a nationwide database maintained by the Social Insurance Institution of Finland. The data were classified at the active pharmaceutical ingredient (API) level and completed using publicly available data sources including information on the date of the first marketing authorisation, prices, and inclusion in the EU list of critical medicines. Defined Daily Dose (DDD) was used as a proxy for the price levels. Age of the APIs were assessed according to the first marketing authorisations. Descriptive analyses were conducted using R.

## Results

Between 2010 and 2022, a total of 150 APIs exited the reimbursement system. The most common therapeutic areas of the APIs were alimentary tract and metabolism (15%), cardiovascular system (15%), and nervous system (11%). 49.3% of the medicines were for acute conditions, while 50.7% were for long-term use. Of all the APIs, 6% were included in the EU list of critical medicines, including, for example, phenoxymethylpenicillin.

After exiting the reimbursement system, 62% of the APIs remained on the market as non-reimbursable medicines and 38% exited the Finnish market immediately. The APIs that stayed on the market were, on average, older (median age 31 years) than the APIs leaving the market (median age 28.5 years). Furthermore, the APIs staying on the market after exiting the reimbursement system were more affordable than the APIs leaving the market with median prices of €0.85 and €1.47 per DDD, respectively.

## Conclusions

APIs, even some that are listed as critical in the EU, exit the national reimbursement system every year. APIs staying on the market are older and more affordable compared to those leaving the market. The authorities should pay attention to the changes in the range of reimbursable medicines to ensure that essential medicines are available and affordable at community pharmacies also in the future.

## Key findings

- 150** active pharmaceutical ingredients (APIs) exited the national reimbursement system during 2010–2022
- 62** percent of APIs remained on the market as non-reimbursable medicines and 38% exited the Finnish market immediately
- 9** APIs were included in the EU list of critical medicines
- 30** years was the median age
- APIs staying on the market were on average more affordable compared to APIs leaving the market

## References

1) Kollen et al. 2012 Discontinuation of reimbursement of benzodiazepines in the Netherlands: does it make a difference? BMC Fam Pract 13, 111. 2) Stoker et al. 2019. Effect of reimbursement restriction policy on the use of benzodiazepines in the Netherlands: an interrupted time series analysis. BMJ Open. 3) Vondeling et al. 2018. The Impact of Patent Expiry on Drug Prices: A Systematic Literature Review. Appl Health Econ Health Policy 16, 653–660.

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