

Treatment costs of novel medicines and the relative importance of biologic status to treatment costs – Retrospective register study in Finland in 2011–2021

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Introduction and aims

Costs of outpatient care medicines have strongly increased over the past decades. New, more expensive medicines entering the market are seen as one of the main reasons for this.¹ One major trend in pharmaceutical development has been the transition to biologic medicines rather than traditional small molecule medicines. This study examined new active substances and their treatment costs at the time of inclusion in reimbursement scheme in Finland between 2011 and 2021. Furthermore, the treatment costs of biologic medicines compared to other medicines were examined.

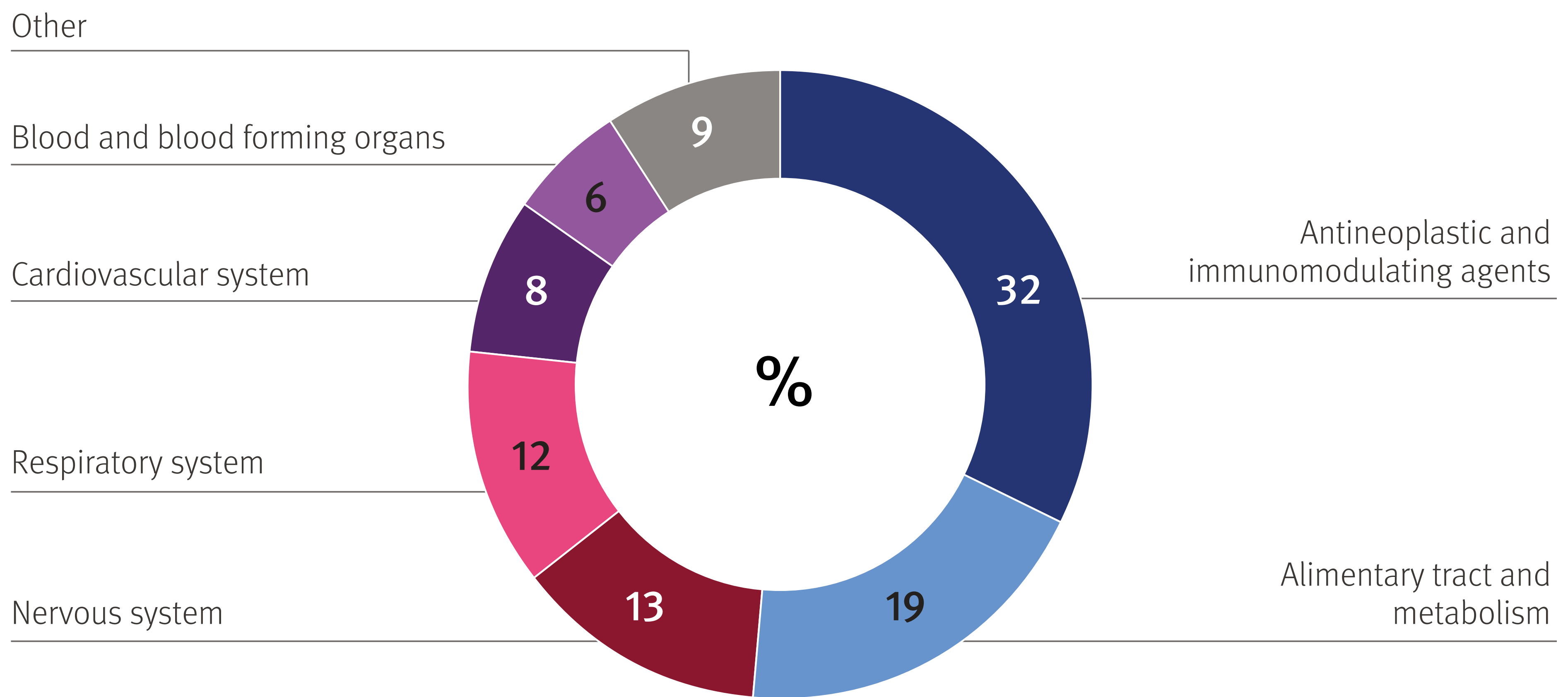
Method

We identified new reimbursable medicines and their six-month treatment costs at the time of entry into the reimbursement scheme from the nationwide register of medicine dispensations reimbursed under the National Health Insurance Scheme maintained by the Social Insurance Institution of Finland. All costs were converted to 2022 monetary value. Statistical averages and distributions and a linear regression model were used to examine the study questions.

Results

Between 2011 and 2021, a total of 193 new medicines were included to the public reimbursement scheme in Finland. Of these, 31 were biologic medicines. One to six new biologic medicines were included in the reimbursement scheme each year, mainly during the latter years of the study period. Indications for new biologic medicines were most often rheumatic diseases, blood diseases, diabetes and migraine. In 2011, the median cost of six-months' treatment per patient was €1,209, compared to €10,652 in 2021. The median cost of biologic medicines for the entire period was €8,296, and the corresponding median cost of non-biologic medicines was €1,514. The cost of six months of treatment of new biologic medicines was 4.7 times higher ($p<0.001$) than that of new non-biologic medicines.

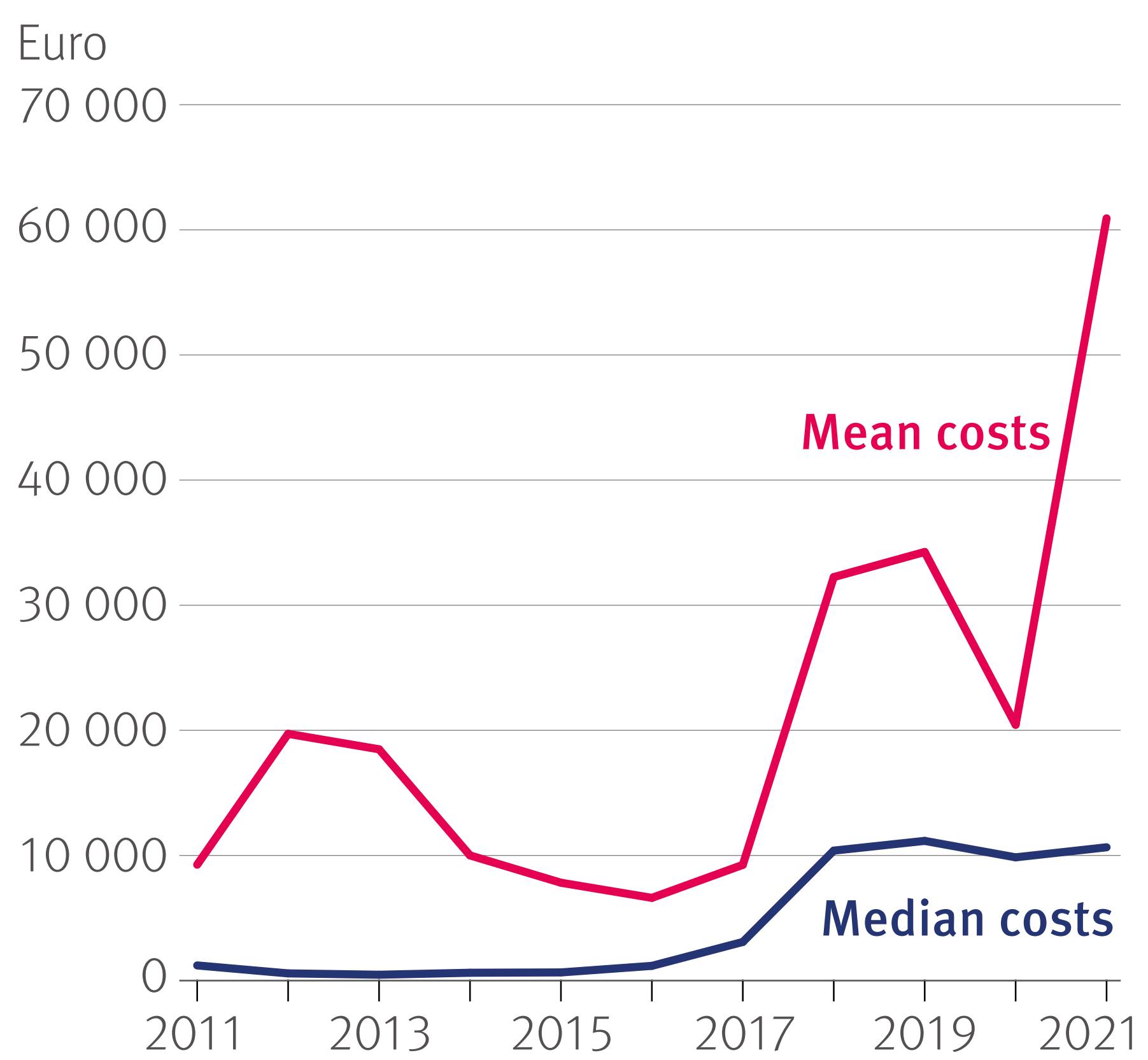
Figure 1. Newly reimbursed medicines, 2011–2021, by therapeutic class (n=193)



Conclusions

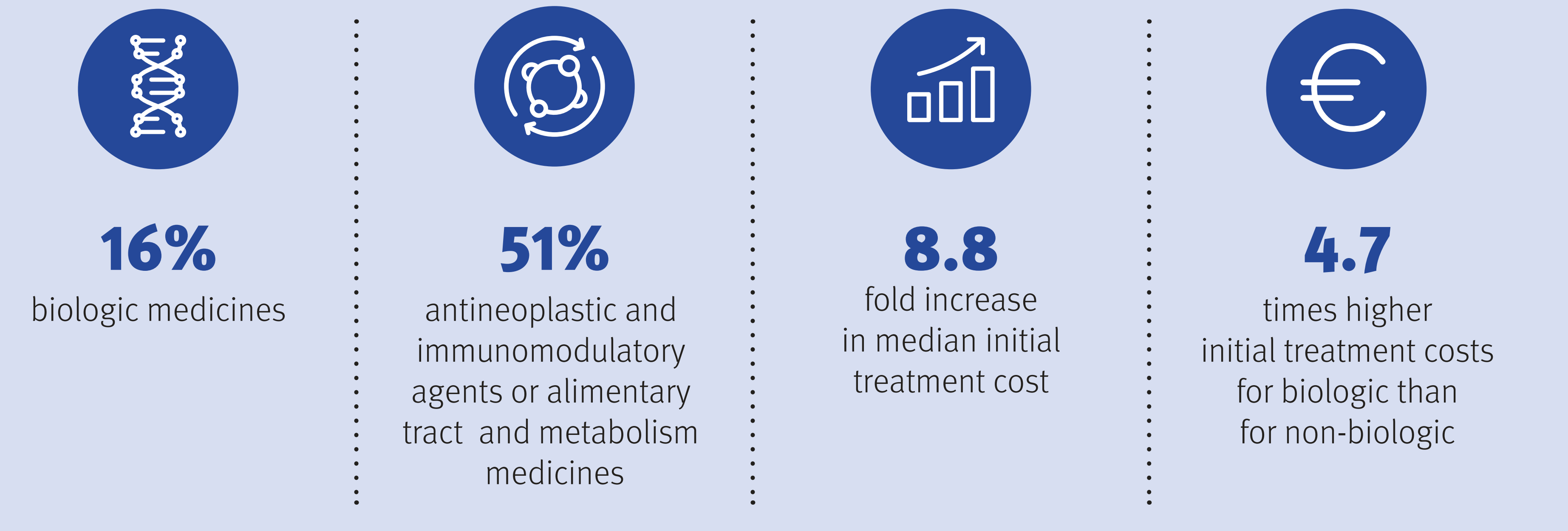
Treatment costs of new biologic medicines were considerably higher at the time of inclusion in the reimbursement scheme than those of non-biologic medicines. Uptake of less expensive biologic medicines and the pharmacist-led substitution introduced in Finland in 2024 are expected to curb the increasing spending on biologic medicines. However, these measures can only take place once the exclusive sales period expires. Substantial spending will thus accrue during the exclusive sales period which can last up to 15 years.

Figure 2. First six-month treatment costs on newly reimbursed medicines 2011–2021



Key findings

New medicines in the reimbursement system in Finland in 2011–2021



References

1 Rome B., Egilman A. & Kesselheim A. (2022). Trends in Prescription Drug Launch Prices, 2008-2021. JAMA. 2022;327(21):2145–2147.

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