

Impact of reimbursement decision on antihypertensive medication use – A nationwide register-based study from Finland

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Introduction

Hypertension is one of the most common long-term conditions requiring continuous pharmacotherapy, and even small financial barriers may impact adherence to it (1-3). Also patient’s level of copayment influences medication use (4). In the Finnish system, in addition to basic reimbursement, there are higher, special reimbursement entitlements (SRE) for chronic and severe diseases, e.g. hypertension, making medicine purchases more affordable. SRE decisions are based on clinical documentation.

Aims

The aim of this study is to examine differences in antihypertensive medication use and associated costs between individuals whose SRE application for hypertension was approved and those whose application was rejected.

Method

We conducted a nationwide register-based study using reimbursed medicine purchase data and SRE data from the Social Insurance Institution of Finland. The study included adults (≥18 years) applying for SRE for hypertension during 2016–2024. Antihypertensive medications were grouped into five Anatomical Therapeutic Chemical (ATC) categories (C03, C07, C08, C09, C02). Medication use was assessed for 12 months before and after each applicant’s first SRE decision. Outcomes included (1) number of antihypertensive medications, (2) ATC-class–specific utilization patterns, and (3) annual drug costs.

Results

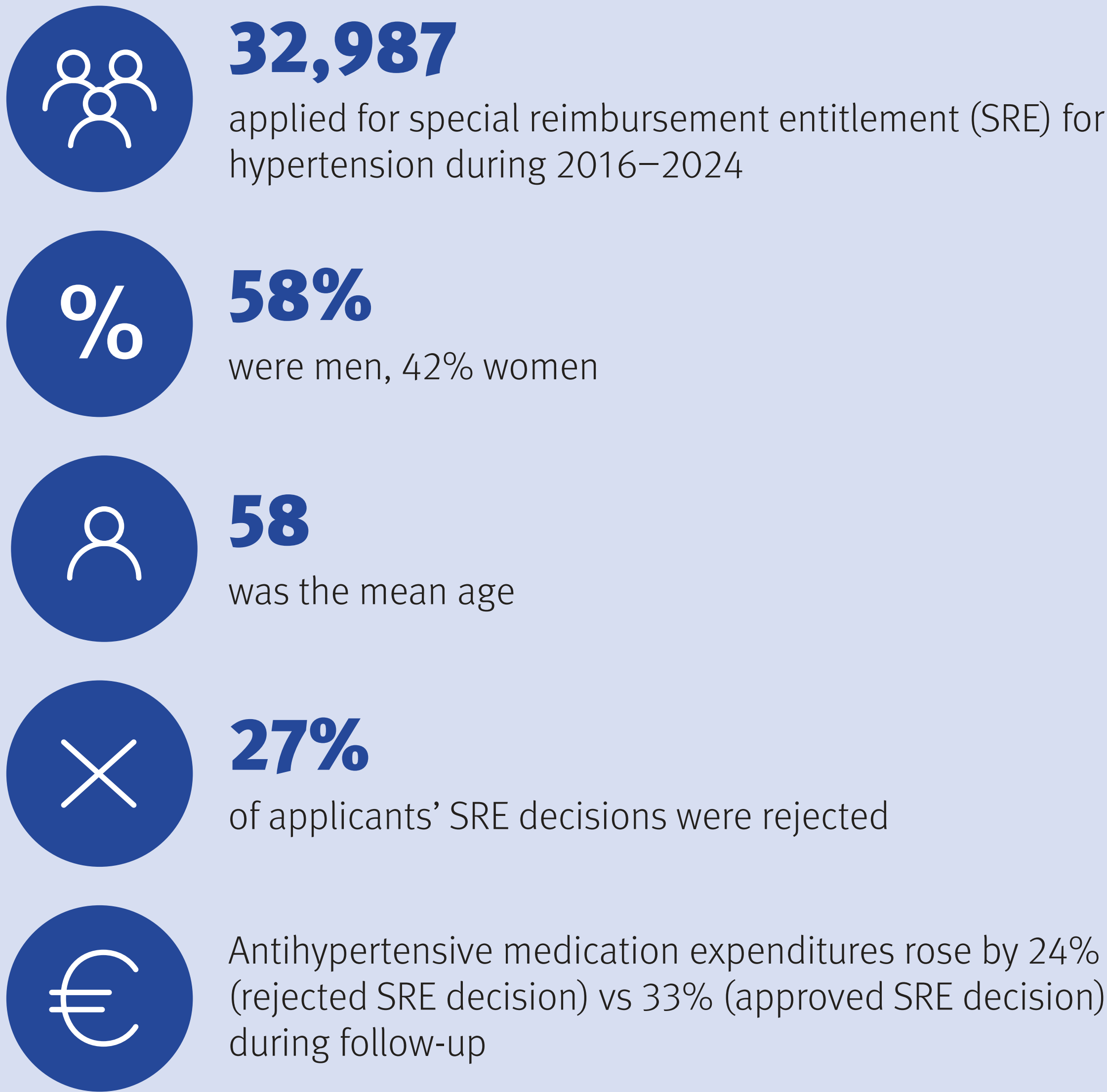
A total of 32,987 individuals applied for SRE, and 27% received a rejection. The 67 antihypertensive active pharmaceutical ingredients (APIs) included showed consistent distribution across ATC categories regardless of SRE decision. The mean number of antihypertensive medications decreased slightly in both groups following the SRE decision (1.89 to 1.85 vs. 2.30 to 2.19), with a marginal-

ly greater reduction among approved applicants. In contrast, total medication expenditures rose in both groups but increased more slowly among those with a rejected decision (24%) compared with approved applicants (33%).

Table 1. Mean number of antihypertensive medicines in use

	Rejected decision	Approved decision
1 year before SRE decision	1.89	2.30
1 year after SRE decision	1.85	2.19

Key findings



Conclusions

Reimbursement decisions appear to shape the economic burden of hypertension treatment, potentially by influencing medication patterns. Higher costs among approved applicants likely reflect increased use of combination therapies, consistent with reduced co-payments enabling more intensive treatment. Rejections may relate more to diagnostic processes than true treatment needs, highlighting the importance of aligning clinical documentation with reimbursement criteria to support equitable access.

References

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